Clinical Lectures ON SCLERODERMA.

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LECTURE II.

CIRCUMSCRIBED AND MIXED SCLERODERMA.

GENTLEMEN,—We will consider to-day the remaining forms of scleroderma. One is diffuse, and is always unsymmetrical; the other is circumscribed, and, though mostly unsymmetrical, is not invariably so. We will discuss first the circumscribed scleroderma, which is more often called morphœa. As this last name is intended to indicate, it generally consists of blotches or patches, but is sometimes in bands. I will relate to you some cases, and show you others, which will illustrate most of the points that make this form so remarkable and distinctive, that it was a long time before its relationship to the other kinds of scleroderma was perceived, and it is doubted even now by some high authorities, such as Kaposi, whether we ought not to consider it a separate disease. It affects the female sex in even greater proportion than the diffuse symmetrical form, and, like it, may affect both children and elderly people; but it is most frequently seen among young and middle-aged adults. Its clinical features appear in the following cases:—

Miss K——, aged thirty, noticed in June, 1877, a white patch with a "bump" in the nape of the neck about three inches long and about an inch and a quarter in width; she does not think that the area of the patch increased up to the time that I saw her in March, 1878, but it projected more; she suffered from frequent "bilious attacks" attended with giddiness, pain, and weight in the chest, with vomiting and diarrhœa, but no headache. She knew of no cause for the lesion, and can give no account of its development. When I saw the patch it measured four inches and a half by one and five-eighths of an inch, but the upper half was much narrower than the lower; it was of a dead-white hue, with marked thickening in the centre and upper part, but at the edge the thickening was only slight, and faded off into the healthy skin, and there was no vascular zone round the patch. On the surface were shallow furrows radiating from the centre towards the circumference—in short, a puckering of the affected integument as if it had contracted; it could only be pinched up with difficulty on account of the thickening, but it was not adherent to the subjacent tissues. The skin felt hard, like rather stiff leather, between the fingers, and at the extreme edge white dots were seen surrounded by healthy skin. The patch was in the middle line, but more on the left side than the right. She was under treatment for some time, and general tonics were given internally and locally. An attempt at continuous galvanic action was made by fastening on the patch a plate of zinc and copper, with a piece of lint wet with salt solution between them. This did no good; indeed, the thickening increased somewhat, and produced more corrugation of the patch by the central contraction; and soon after I lost sight of her for a time, but three years later I saw her again, and she told me that about a year and a half after I had last seen her she had an attack of typhoid fever, and that after that the patch gradually disappeared; its going and coming appeared therefore equally mysterious, but it is not improbable that the friction of the dress at the nape was a determining cause for its position, and that the prolonged horizontal posture from the typhoid fever was the means of sending more blood to the part, and so led to recovery. The position of this patch in the middle line must be borne in mind, as it contrasts with most others which are more laterally placed, and it cannot be ascribed to a special nerve area. The thickening was greater than we usually find, but is present also in another of our cases. Finally, the complete disappearance of the disease in between two or three years after its first onset is to be remembered as probably part of the usual history of such cases if they could always be followed up. Here is another example of this disappearance whilst under observation in which the patches were multiple:—

Joyce M——, aged thirty-eight. Six months before her application to the hospital she noticed white patches appearing on the right thigh and leg without any apparent cause; the top one was and is attended with itching, but there is no symptom with the others. She knows of no cause for them; her general health is not very good; she has several patches of lupus erythematosus on her scalp and face, most of them cicatrised, the result of treatment, and there is some suspicion of marital syphilis. The morphœa patches are thus arranged: one the size of the end of the finger is situated rather to the inner side of the lower third of the thigh; another below this an inch and a half by three-quarters of an inch, with its greater diameter placed transversely; at the back of the thigh, just above the calf, is another patch an inch and a quarter by three-quarters of an inch; still lower on the inner side of the leg, over the tibia, is a slight yellowish discolouration, not clearly defined, and scarcely diagnosable except for the presence of the others; a little lower is another cicatricial-looking patch, which has still less of the typical morphœa aspect. The upper, larger patch has a slight violet zone round it composed of dilated bloodvessels; the others lack this, but the upper patches are of a yellowish-white colour, hard to the touch, but capable of being pinched up, and feeling like a piece of stiff leather. In the course of the year the patches began to disappear, the top patch and the one below the knee becoming thinner and less discoloured, and six months later the patch on the calf disappeared, but the patient ceased to attend before they were all completely gone.

In the following case the nerve distribution of the patches can be distinctly traced:—

Sarah J——, aged seventeen, attended at the East London Hospital for Women and Children on Dec. 8th, having been sent to me by my friend and colleague, Dr. Donkin. She was pale and subject to fainting, remaining insensible for an hour sometimes, and in some of these "faints" had fallen downstairs. She suffers from frequent headache and pain on the left side; has menstruated, but never regularly; never had rheumatic fever; heart normal. About four years ago she noticed some spots on the flexor surface of the left wrist; several appeared about the same time, extending about half-way up the forearm. They were not more than one-eighth of an inch in diameter, and they have gradually got larger by running one into another, and fresh places are appearing. Most of the patches are now raised above the normal skin, with a sharply defined border, but no vascularity around or in the neighbourhood, and the natural lines of the skin are unaltered. The patches can be pinched up as a whole, but not any part of them, and there is a very decided thickening; two or three are slightly pigmented of a fawn colour, but the rest are quite white. There is slightly less sensibility on the patches than round about them, and the patient thinks there is less strength in the affected arm. The patches are distributed as follows: In the right second intercostal space and towards its inner border, an inch to the right of the median line, is a patch half an inch in diameter; in the second left space on the same level, but two inches from the median line, is another; on the inner side of this in the third space is another, and in the same space are two spots three-quarters of an inch in diameter apparently commencing, the skin looking a little yellow and feeling a little thickened. In the axilla at about the second and third spaces is a group, some of which are a quarter of an inch, others are irregular and an inch and a half or more in diameter, running down rather to the back of the arm; towards the inner condyle is an almost continuous chain of patches; and in the same direction, but rather more anteriorly, is another less marked series, beginning about two inches below the inner condyle and reaching down the forearm for about two-thirds. There are a few directly posterior on the upper arm for about three inches; another series, fewer and less prominent, begins three inches below the acromial process and goes straight down to a point two inches above and to the front of the outer condyle; at this point there is a patch an inch by three-quarters of an inch, and the line is continued on to the upper two-fifths of the forearm; between the outer and inner of these two lines is a third, beginning with small ones a quarter of an inch in diameter, in the middle of the upper arm to the elbow, and from there to an inch above the hand; the lower patches are larger, irregular, and pigmented. The vaccina-

tion cicatrices are well-marked, with no morphœa in them. The extreme limits of the size of the patches is a quarter of an inch and two inches. In this case you have to observe that the patient was of a neurotic temperament, that the patches were very numerous, that the first ones came in a group and that they have very considerably increased in size from the date of their first appearance, when they were only an eighth of an inch across; then there was slight pigmentation in some of the patches, but this feature is much more developed in a case that I will relate presently. The arrangement of the patches in the intercostal spaces and in lines down the limbs affords a good illustration of nerve influence in the distribution of the disease—a condition not very uncommon as regards the fifth nerve, but less frequently seen, or less easily recognised, in other parts of the body. The marked elevation of the lesions and the absence of the usual vascular zone are also noteworthy features.

Our next case exemplifies fifth nerve distribution:—

Ellen T——, aged ten years, was sent to me by a doctor from Wirksworth. Three months previously a whitish patch appeared on the forehead just to the right of the middle line at the commencement of the hairy scalp; it is now spreading downwards on to the forehead, and measures an inch and a half by half an inch; the upper and lower parts, which are the more recent, are pearly white and thin, while the middle two-thirds are yellowish and thickened, and the skin cannot be pinched up in these parts. The skin is pink for about half an inch beyond the patch, but there is no distinct zone of vessels. On the scalp corresponding to the apex of the occipital bone, and quite in the middle line, another patch is coming an inch by half an inch, oval and slightly yellowish, but the skin is not thickened. In the centre of the cheek is an irregular patch, about an inch and a quarter by two-thirds of an inch, where the skin is very slightly paler than the surrounding parts, but there is no alteration to the touch or when pinched up. The mother says it is more conspicuous sometimes, when the rest of the cheek is red; now it is only just perceptible, and would have escaped notice if attention had not been drawn to it. With a lens the skin is seen to be slightly smoother than the healthy skin. No assignable cause for the patches is discoverable. The patient has never been strong, and there has been no definite illness except three convulsions at long intervals between the ages of three and five years; and there have been none since. She often complains of her legs aching, and easily gets out of breath, but the heart and lungs are healthy. She was only seen once. This distribution in the course of the fifth nerve is much more striking in some cases, several patches not unfrequently lying exactly along the course of distribution of its branches, the domain of the supra-orbital branch being especially frequently favoured. A patch or band will sometimes divide the forehead and anterior half of the scalp exactly in the middle line, as if by the cicatrix of a sword-cut. I will show you the portrait of such a case presently.

The next case exemplifies rapid evolution:—

William M——, aged eleven years, came to the East London Hospital for Children on June 18th, 1877. A month previously a patch the size of half a crown appeared close to the spine on the right side below the level of the angle of the scapula; a few days later a smaller one appeared in the right interscapular region; the large patch began with itching and tingling; and the week before he came to the hospital he complained of pain in it; the pain was constant but with exacerbations. The large patch is the size of the palm with ill-defined edges, so that the patch gradually merges into the surrounding skin, which is naturally dark; the patch is white and looks like a cicatrix, with brown patches the size of a florin on it; the skin over it has a leathery feel, and is thicker than the surrounding parts. In the lumbar region over the spine is a white atrophic spot the size of a pea, depressed below the other skin. There is a streaked patch on the left of the spine glistening and slightly scaly, apparently the commencement of another patch. The boy looks perfectly well and ruddy, and has had no previous illness, except measles; he only attended for a short time and could not be afterwards traced. In addition to the rapid evolution the association of a white atrophic spot with the morphœa is interesting here. This has been previously observed, and is not very surprising if my theory of the pathology of morphœa is correct.

The next case is of special interest, because its course has been watched for several years, so that the evolution of the disease could in great part be traced; and through the good nature of the patient the morbid anatomy has been made out for the first time, both in the early and later stages.

L——, aged thirty-nine, widow, first attended at the East London Hospital for Women and Children on March 16th, 1878. Eight months previously she noticed a white patch the size of a threepenny-piece just above the right clavicle. When first seen by myself it had increased to an oval patch an inch and three-quarters by three-quarters of an inch, consisting of two parts, a white slightly thickened parchment-like portion and a thinner and pinkish patchy-looking part, which surrounds three-quarters of the white part. Beyond this large patch is a white atrophic spot the size of a millet seed. On December 1st, 1877, the patch is described as about an inch to the left of the sterno-clavicular region in the same position. Further observation showed the mode of development of the left patch was as follows:—Several small pearly white and slightly depressed spots about one-sixteenth of an inch across developed in groups, the surface round being pinker than the rest of the skin; these evidently atrophic spots enlarged, and subsequently coalesced into patches of variable size. The centre of the spot is smooth, but the border is slightly puckered into radiating lines. In the neighbourhood of these spots the skin is slightly marked with vessels, but when the patch gets larger, dilatation of the vessels round the patch will probably form a pink or violet zone. The older and larger patch increased in size in a similar way, small atrophic spots first forming, enlarging, and then coalescing with the large patch. On December 31st it was noted that both patches had increased since she was last seen in the spring; the right one had grown in all directions, especially at the anterior and posterior ends, and there was one spot on the right border of the sternum. On the left side the spots had increased in size, many being a quarter of an inch or more, but there was no large patch then; all the new patches were of a much more opaque white than before, especially the posterior end of the large patch. There is a peculiar irritation present. The older and larger patch, which had a very irregular outline, measured four inches by two and a half in its greater diameter. The patient was good enough to allow me to excise a portion of the patch some time previously for microscopic examination, and when the patch was much smaller the whole of it was removed, but it recurred, and it would be impossible to say that any had been taken away from its present aspect (1881). In order to ascertain whether the sweat glands were interfered with, pilocarpine was injected under the skin and sweating was produced all round the patch profusely, and the whole of the body was slightly moist, but the patch itself remained quite dry. The patches are always hairless, and the natural wrinkles are obliterated. She is of a nervous, worrying temperament naturally, and this is aggravated by a poor digestion and family troubles, in the shape of an idiot child and the worry of a shop, of which she is proprietress, in a very poor neighbourhood.—Jan. 19th, 1885: The large patch has not increased in size since I saw her four years ago, but its texture has altered, and the upper and older three-quarters are evidently recovering to a great extent. The skin is very thin and of various shades, from bright-red to pink-red; parts of it are well-defined from the rest, and the colour is almost entirely due to dilated vessels. The lower three-quarters is still white and parchment-like, in fact, retains the morphœa aspect, but is not uniform. At the most extreme part of the posterior border is a thickened area, about half an inch square, of apparently ordinary keloid, on the site where a piece of skin was removed some years ago. Nearer the median line of the neck than the large patch is an irregular group of six morphœa spots, one-sixteenth to a quarter of an inch in diameter. On the left side the corresponding patch has never developed, as it once apparently promised to do; but there is still only an irregular group of white indurated skin patches, half by an eighth of an inch, and arranged in two parallel lines, some half dozen in all. The skin on which they are placed is still somewhat pinker than the rest, but there is no well-defined zone either here or in the larger patch now.

I have no case of my own to offer you in which the disease is in bands, but there is a very good instance of it reported in the *British Medical Journal* of June 7th, 1884, by Mr. Simpson of Lincoln, in which, as a result of, or at all events consecutive to, an injury to the knee of a girl of between two and three years, the skin over the patch became hard, and the induration spread upwards and downwards until it

formed a band along the inner and anterior aspect of the limb three inches broad at the groin, and an inch at the dorsum of the foot. The skin was pallid, glossy, and irregularly mottled, with yellowish-brown spots, the borders were irregular and of a pink hue, and the contraction of the indurated skin bent the foot up to an angle of thirty degrees with the leg. The case appeared to be getting better when last seen, about four years from the beginning of the disease.

Mr. Hutchinson's case of Louisa O——, aged five years, reported in his Lecture on this subject, is also in point. Some months after having complained that her foot hurt her, a white patch was noticed in front of the instep, and after that spread rapidly, and when seen a year later there was a "long irregular tract extending from the dorsal surface of the two inner toes along the middle of the dorsum of the foot over the front of the instep and up the front of the leg, and then, diverging to the outer side of the knee, passed up the outer side of the thigh as far as the middle."

In both these cases an injury seemed to be the exciting factor, and this is corroborated by others. Thus, in Gillette's case[1] the affection followed a blister; in a case of Dr. Hilton Fagge[2] patches were symmetrically placed in the position over which the garters were worn; and these cases support my suggestion that a patch on the neck in the first case related might be due to the friction of the dress. No doubt there must be a predisposition on the part of the patient; but this is true also for the cases with a definite nerve distribution; for though the nervous system can determine the occurrence and the position of an eruption, and perhaps its extent and severity to some degree, it depends on the individual attacked what kind of lesion will ensue.

A case of Mr. Streatfeild's bears upon this.[3] A man, aged forty-five, had morphœa confined to the area of the left fifth nerve, affecting the skin and subcutaneous structures, and in addition he had exostoses of the lower jaw and hard palate of the same side; he had also ulceration of the lower part of the cornea, but this appeared to be due to the hard edge of the sclerosed lid. Another favourite position for morphœa bands is on the breast, perhaps from the friction from the edge of the stays. And here I would observe that the patches are more superficial than the bands, and usually affect the skin alone. Do not imagine that I wish to push the theory of injury to the exclusion of nervous influence. There are so many cases where the patches are obviously in the course of nerves, that we must assume they have an important influence in this arrangement, and probably in the production of this disease. At the same time, I think that local irritation or injury is the probable exciting cause of a certain number of instances, and local causes should therefore be always sought for; while there are a large number of cases for which we can give no satisfactory explanation unless we assume that there is a local vaso-motor or trophic defect.

(To be concluded.)

ON THE

SIGNIFICANCE OF A PECULIAR MURMUR IN RELATION TO THE DIAGNOSIS OF INTRA-THORACIC DISEASES.

BY J. S. BRISTOWE, M.D. LOND.

(Concluded from p. 881.)

CASE 3. *Disease of heart and large vessels at base, with probable communication between an artery and vein.*—Daniel B——, a letter-carrier, thirty-one years of age, came under my care on Jan. 15th, 1885. His health had been good up to about five years ago; he had never had rheumatism or syphilis. About the time just stated he began to suffer from shortness of breath, and this had continued to increase, but it had not until recently prevented him from walking many miles daily in the performance of his duties in a suburban district. On Jan. 1st he complained of feeling cold and shivering, of cough, and of fluttering at the heart; his breath became shorter; and he took to his bed.

The patient is a spare, pale, but fairly healthy-looking man, complaining of pain in the cardiac region, cough, and dyspnœa. Tongue slightly coated; skin cool and moist; temperature normal. On examining the chest, the lungs, excepting for the presence of a little rhonchus, appear to be healthy. Respiration 30. The præcordial dulness is of normal area. The heart's apex beats about half an inch below the nipple and a little to its inner side, and attending each beat there is a fairly well-marked thrill; there is also slight pulsation visible at the inner extremity of the left second interspace, and here also a slight systolic thrill is perceptible. A murmur is audible over the cardiac area and the position of the large vessels; this is loudest and most distinct over the situation of the pulmonic valves and pulmonary artery—or, in other words, over the cartilage of the left third rib and corresponding portion of the second interspace. In this region one can hear the first and second sounds of the heart, the latter being somewhat scratchy in quality; but, additionally, there is a loud blowing murmur, beginning with the systolic sound, continued, without obvious change, throughout the whole of the systolic period, and with some modification of character (reminding one of a venous hum) through the second sound into the diastolic period, during which it dies away. The murmur is audible over the aortic area and at the apex; but in these situations (as, indeed over the greater part of the cardiac area) the systolic portion of the murmur is alone distinguishable. The murmur is also to be heard distinctly over the whole of the manubrium of the sternum, and behind over the apex of the left lung, and in the course of the aorta as low down as the middle of the scapula. The second sound is louder and more scratchy to the right of the sternum than to the left. It is not quite clear whether the murmur at the apex is wholly conducted from the base, or is in part a mitral systolic murmur. The action of the heart is regular but quick (110); the pulses at the wrists are equal, and, as shown by the sphygmograph, of quite normal character. There is no undue pulsation in the vessels of the neck, and no enlargement of veins about the neck or in the thoracic walls. Pupils equal; voice normal. Abdominal organs and kidneys healthy. No anasarca; no enlargement of the ends of the fingers.

The patient was kept in bed and examined carefully from time to time; further examination confirming the general correctness of the description given. But a few additional phenomena were observed. Among these, the fact that the right pupil was usually somewhat larger than the left; the fact that occasionally he presented slight puffiness of the backs of the hands, more especially of the back of the left hand (this it appeared had often been observed before admission); and the fact that he suffered at times from some aching pain in the region of the heart and left axilla. So long as the patient remained in the hospital he continued fairly comfortable and looked fairly well. But he was occasionally kept awake by the thoracic pain and cough, which, however, were never very severe, and improved. There was some difference of opinion with respect to the intra-thoracic murmur. Some of those who examined the patient held that there was a double basic murmur. For my own part, I never saw reason to modify the description of it given above, and I may add that Dr. Gee on one occasion examined the man with me and came to the same conclusion that I had done.

The patient was discharged improved in health, but unchanged as regards the physical signs of disease, on Feb. 24th, 1885.

What is the matter with the patient? My present experience would lead me to believe that he has an intra-thoracic growth of the same kind as the growths in my first case, or that he has some communication between an artery and a vein, or the equivalent of a vein, as in my second case. I do not believe that he has a tumour, for his symptoms have been coming on for years; they are very slowly progressive at the present time, and there are no enlarged glands in the neck, or tumours there or elsewhere, to confirm the diagnosis of intra-thoracic new growth. On the other hand, it does not seem very likely that any communication exists between the aorta and the vena cava or one of the innominate veins, partly because the murmur is loudest at the left second interspace, which is far removed from the normal position of either of these veins, partly because of the total absence of dilated or pulsating veins in the neck, of distended veins in the thoracic walls and arms, and of œdema and congestion of the

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[1] Archives Gén. de Méd. 1854, tom. ii., p. 637.
[2] Quoted by Hutchinson in Lectures on Clinical Surgery, vol. i., p. 315.
[3] THE LANCET, 1880, vol. i., p. 996.

head and neck. The absolutely healthy quality of the pulse, combined with the situation in which the murmur appears to arise, might suggest disease of the pulmonary artery, and communication between this and some neighbouring vein, such as one of the pulmonary veins. But primary disease of the trunk of the pulmonary artery is excessively rare, and communication between such a diseased artery and a vein is of too improbable occurrence to deserve serious consideration. The most likely explanation seems to be that the patient has an aneurysm of one of the sinuses of Valsalva or of the aorta in the immediate neighbourhood, and that a small communication has become established between this and either the pulmonary artery or the left auricle. The former of these two incidents is the more common and the less serious, and for these reasons the more likely. I may call your attention to a very valuable report on the subject of "Aneurysm of the Aorta opening into the Cavities of the Heart or large Vessels" published by the late Dr. Peacock in vol. xix. of the Transactions of the Pathological Society, which may be usefully studied in connexion with this paper.

I add a fourth case, not because it has any relation to the title of my paper; but because it closely resembles in almost all other points the case of Susannah F——. It presents also features of independent interest.

CASE 4. *Large aneurysm of ascending aortic arch; compression and obliteration of junction of both innominate veins with cava; great œdema of head and neck and upper part of trunk; suppuration among pectoral muscles, of middle lobe of right lung, and of tissue between œsophagus and left bronchus perforating both tubes; death; necropsy.*—Henry C——, aged forty-five, was admitted under my care on July 7th, 1857. He had had good health up to seven months previously, when he first felt a dull heavy pain in the chest; this gradually increased, and became accompanied by cough with pain in the head; then difficulty of breathing came on, with inability to lie down, especially on the back or right side. Later on he noticed swelling of the neck and upper part of the chest.

On admission he was suffering from orthopnœa, with an occasional troublesome cough, and intra-thoracic pain. His head and neck and upper extremities were much swollen and congested; and the veins in the neck, as well as those in the upper part of the walls of the chest, were distended. The lower part of the trunk and the legs were wholly free from œdema. The heart's action and sounds were healthy. There was some prominence of the upper part of the sternum and adjoining ribs; and there was an area of dulness, several inches in diameter, having the manubrium for its centre. There was no pulsation here; neither was any murmur detectable. No tumours to be felt in the neck, no inequality of the radial pulses, nor any signs of pulmonary disease.

The patient varied a little from day to day as regards his dyspnœa and pain; but in the main he gradually got worse. The congestion and œdema of his head and neck, upper part of the chest and arms, increased considerably, until his aspect was shocking to look at. And towards the close of his life the œdema descended, and involved not only the abdominal walls, but the legs. His dyspnœa was always considerable, and at times distressing. He was unable to lie down, and generally passed his days and nights sitting across a chair with his face to the back and his head resting on his arms, which were supported on the back of the chair. In this position he dozed from time to time. The pain continued more or less severe. There was nothing specially to be noticed as regards the state of his digestive organs. He took food fairly well, and his bowels were pretty regular. There was nothing abnormal in the urine. He died on July 23rd, sitting on the corner of his bed.

Necropsy.—Extreme anasarca of head and neck and front of chest, slight anasarca of feet. The connective tissue and muscles of the front of the chest were highly œdematous, and the muscles occupying the left mammary region were hardened and infiltrated with pus. The sternum was strongly adherent, especially above, to a nearly globular intra-thoracic tumour. This, which measured nearly eight inches in diameter, extended from the top of the sternum above to the cartilages of the fifth rib below, and from an inch outside the junction of the osseous ribs and cartilages on the one side to the corresponding situation on the opposite. The heart was pushed downwards and to the left, and the lungs were displaced laterally and adherent to the tumour. The pleuræ contained about a pint of serum each. A layer of recent lymph lined the anterior half of the left pleura. The lungs were small. The middle lobe of the right was infiltrated with pus, the lower lobe was collapsed. The rest of the right lung and the whole of the left were crepitant. The pericardium was universally and firmly adherent to the heart by old adhesions, which were abundant, œdematous, and consequently very thick. The heart was of ordinary size, if anything rather small, and its valves were healthy. Pharynx and œsophagus for the most part healthy. But the anterior wall of the latter presented a longitudinal slit or ulcer about an inch long, which communicated with a sloughy cavity the size of an almond between it and the left bronchus. Three or four of the cartilaginous rings of this bronchus were partially destroyed, and their denuded extremities hung into the cavity. The mucous membrane of this tube was perforated at two or three points. There was nothing to show how this small abscess cavity had arisen; but it was evidently the cause of both the œsophageal and bronchial ulceration. Larynx and trachea and (with the above exception) bronchial tubes healthy. The tumour, which extended back almost to the spine, was an aneurysm, with a thick, tough, fibroid capsule, and nearly filled with laminated coagulum. This latter measured from an inch to an inch and a half in thickness. The rest of the cavity was occupied by more recent clot. The aneurysm sprang from the front and sides of the ascending aortic arch, from just above the valves below to the origin of the innominate artery above. The upper and lower margins of the orifice of communication were thick and rounded. The lateral margins were lost in the arterial walls. No part of the aneurysm had any direct connexion with any of the suppurating regions before described. The transverse arch of the aorta was somewhat dilated; and the whole length of the vessel was studded with patches of atheroma. The right vena innominata was distended, and completely blocked up by adherent, decolourised, laminated coagulum; and coagula gradually assuming the characters of recent clot extended to a considerable distance into the veins opening into it. The same was the case with the left innominate and its branches. But this innominate was thicker walled, and the clot filling it was more adherent and denser. Both veins stood up almost perpendicularly from the aneurysm, at a considerable distance from one another, and the proximal parts of both were lost in the aneurysm, and could not be followed either upon or through its walls. The superior cava could be traced upwards from the heart for a distance of two inches, where it gradually blended with the walls of the aneurysm and was lost in them. The upper end was separated by a considerable interval from the lower end of the right innominate, and by four or five inches from the lower end of the left. The abdominal viscera were all healthy.

CASES OF LITHOTOMY IN THE ADULT,

WITH REMARKS.

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(*Concluded from page 886.*)

CASE 2. *Twenty-six small calculi removed by the lateral operation from a man sixty-four years of age; recovery.*—Henry W——, sixty-four, was admitted into the London Hospital under Dr. Langdon Down on March 14th, 1873, and remained on the medical side of the house till May 4th, when he was transferred to my care. The diagnosis card bore the record, "granular kidney, bronchitis, and cystitis." The urine had been alkaline at first, later slightly acid; sp. gr. 1025, and contained mucus and one-eighth of albumen. The patient had been troubled with a cough for many years, worse in the winter than in the summer. He had never had hæmoptysis. He said he had stricture for two or three years. Nevertheless, a full-sized catheter passed easily. He suffered from great pain in the back, preventing sleep.

On May 22nd, having found that there were calculi in the bladder, I passed a lithotrite scoop, seized a calculus, brought away a portion, and tested it. The muroxide test showed that it contained lithic acid. Although the patient

had no shivering fit afterwards or other bad symptom, he certainly did not wear the aspect of a case favourable for either lithotomy or lithotrity. He appeared to be an old broken-down man, with bronchitic and emphysematous lungs and damaged kidneys; but I thought he would have the best prospect of recovery if I removed the calculi as speedily as possible. Accordingly, on June 9th I performed the lateral operation on the principle of the median, cutting into the urethra as far as the apex of the prostate, and slightly into the gland, introducing a director, withdrawing the staff and then insinuating my finger into the bladder. I say into the bladder, but in reality I could scarcely reach further than the vesical orifice, owing to the depth of the organ and the great enlargement of the prostatic lobes. In performing the operation I used a curved catheter staff, made for me by Messrs. Krohne and Sesemann, after the model of the ordinary rectangular catheter staff. The calculi were extracted one by one, twenty-six in all. The largest were about the size of marbles, of a buff colour, and marked with facets. There was tolerably free hæmorrhage, chiefly venous, due to congestion of the parts. A tube with a sponge was introduced. A little bleeding following the operation was easily stopped by the pressure of a couple of sponges.

June 10th.—A better night than for some time; pain at meatus, which used to be severe, nearly gone; tongue coated; much flatulence; sickness; thirst. Temperature 99·8°; pulse 120; respiration 30; taken no food; all the water comes through the tube; anxious expression; no pain; scrotum and perineum of a blackish colour from blood extravasation.—11th: Very low; passed a very bad night; erysipelas of nose appearing; tongue coated; pulse feeble; takes no food; tube removed; an indiarubber catheter inserted quite easily. Temperature 102°.—12th: Catheter came out and could not be repassed; no vomiting; in much the same condition; takes milk; urine passes through the wound.—13th: Great pain at times; takes egg, milk, and brandy; erysipelas spreading; nose swollen. I passed a catheter into the bladder, and, having drawn off 20 oz. of very offensive purulent urine, washed out the bladder.—14th: Better; less pain; more relish for food; urine drawn off clearer; bladder washed out.—16th: Rather better; takes more nourishment; erysilepas disappearing.—17th: Better; less pain; erysipelas gone.—19th: Better; takes food fairly; half an ounce of very fetid pus drawn off with the catheter; subsequently the urine drawn was clearer.—20th: Much better; takes plenty of nourishment; two teaspoonfuls of urine passed through the urethra. From this time he was convalescent; the wound healed slowly; the bladder was regularly washed out, and at the end of some weeks he left the hospital, cured so far as the lithotomy was concerned. The calculi are in the museum of the College of Surgeons. Like the others, they were analysed by Mr. Taylor; they consist of uric acid upon a minute nucleus of oxalate of lime. The outer surface of the calculi is coated with a thin layer of urate of ammonia.

Remarks.—Lithotomy, as performed in the present case, cannot be regarded as in itself a dangerous operation. With a very limited incision of the prostate, with only slight dilatation of the gland, and without subsequent contusion in the extraction of the calculi, lithotomy is reduced nearly to a simple incision in the urethra, a procedure which can scarcely have a higher rate of mortality than the "catheter fever," which has been stated on high authority to be fatal in 4 or 5 per cent. of the cases. One of the main features of the case was the marked amendment which followed the withdrawal, on the fourth day after the operation, of a pint of purulent and offensive urine and washing out the bladder. The absence of interference with the neck of the bladder left the retentive power of the viscus unimpaired, and the urine accumulating mixed with vesical mucus and pus, and therefore readily decomposing, created irritation, and probably promoted the spread of the facial erysipelas. Three days after the irrigation of the bladder commenced the erysipelas had gone, and the patient's condition had greatly improved. The foregoing two cases are the only instances of multiple calculi in the adult for which I have performed lithotomy. About this period I attended a case of calculous affection recommended to me by my colleague Dr. Meymott Tidy. The patient was a man seventy-six years of age, who could not pass his urine on account of atony of the bladder accompanying the presence of several calculi in the organ. He was in fairly good condition and much better to all appearance than Henry W——, not being confined to bed or suffering from any serious concomitant disorder. The urine was free from albumen. I gave my opinion in favour of an operation, but very naturally before he decided the patient desired to have a consultation, and Sir William Fergusson saw him with Dr. Tidy and myself. Sir William soon satisfied himself as to the presence of multiple calculi, and after he had returned home wrote to me to the effect that he did not consider the stones as the cause of the atony of the bladder, and advised me not to press the patient to consent to an operation. In deference to Sir William's high authority this negative course was pursued. The patient lived four months longer, regaining some power over his bladder before his decease. No post-mortem was made, the patient being a Hebrew. My impression was that he would have been more comfortable and, provided that he had survived the operation (and I see no reason why he should have succumbed), have had a better prospect of prolonging his life if the calculi had been removed. But this was only an impression which I did not feel justified in acting upon in opposition to the view of a surgeon possessing so extended an experience as Sir William Fergusson. This, however, I think I may say, that if I myself at the same age were suffering constant discomfort and pain from the presence of calculi in the bladder, without very pronounced degeneration or disease of the vital organs, I should certainly have them removed either by lithotrity or lithotomy, and I know of no fairer test to apply in the recommendation of an operation of a serious nature than this—viz., "Would you have it performed upon yourself?"

CASE 3. *Calculus in the bladder of a man sixty years of age: lateral lithotomy; recovery.*—James W——, sixty, labourer, was admitted into the London Hospital on April 24th, 1878. Eight months previously he had passed two small pieces of stone about the size of a small pea and quite smooth. When he was at rest the urine remained quite clear, but it became thick after extra work, and he experienced great pain. He attended as out-patient and was sounded, but no calculus was found. On April 27th he was again sounded, and I obtained audible evidence of a calculus. On May 1st there was more pain, of a cramp-like character, accompanied by frequent micturition and sudden stoppages of the urine. For the last three days the urine was passed every twenty minutes or half an hour. At night he passed water every ten minutes. There was considerable pain during the act of micturition and there was blood in the urine. Washing out the bladder with warm water gave relief. On May 23rd I performed lateral lithotomy and removed a mulberry calculus the size of a small walnut. The oozing which occurred after the operation was arrested by subcutaneous injection of ergotine. The patient made an uninterrupted recovery and left the hospital at the end of three weeks.

Remarks.—The duration of the case was not longer than it would have been under the old system of performing lithotrity. As the patient was a healthy man, I believed that he would not run any greater risk from the cutting than the crushing operation; whilst he would be free from the pain which is often occasioned by small fragments of stone which have escaped the grasp of the lithotrite. As in the preceding case, the operation was a urethrotomy, accompanied by a very limited incision of the prostate.

CASE 4. *Calculus in the bladder of a man sixty-eight years of age; lateral lithotomy; recovery.*—James B——, sixty-eight years of age, labourer, was admitted into the London Hospital on Dec. 7th, 1880. He said that he felt quite well till four years ago, when he began to suffer severe pains in the hypogastric and perineal regions, which were of a cutting character and intermittent. Sometimes he did not feel them for several hours or days; they were always worst while he was moving about, obliging him to stop and sit down, when they would pass off. He had always lived in Norfolk (West Bilney, near Lynn) and been a very temperate man, drinking spring water which was clear and pure to the taste. In all respects, save as to the cause of his calculous complaint, he had been healthy. He had a fresh colour, and appeared to be free from organic disease. He had frequent desire to micturate, sometimes every quarter of an hour, attended with severe pain towards the end of micturition. He had not noticed the stream suddenly stop or found it easier to micturate in one position than another. He had never passed any pure blood, but after exertion the urine became very dark. As a rule the urine had been clear and never offensive. On admission it was loaded with mucus.

Immediately on the introduction of a sound into the bladder a calculus was struck lying close to the orifice.

From the prolonged impression of contact with the calculus produced when the sound was passed over its surface, I judged that it was of considerable size. A lithotrite was introduced to determine the exact size of the calculus, but it was found to be difficult to seize it, and the further prosecution of the matter was deferred until the patient could be anæsthetised. The patient's consent having been obtained to the performance either of lithotomy or lithotrity, as might be considered best, he was placed under the influence of ether on the afternoon of the 13th, and an attempt was made to inject the bladder, but the water escaped by the side of the catheter and the bladder could not be induced to retain fluid however cautiously injected. The calculus was grasped by the lithotrite and found to exceed considerably an inch in one of its diameters, and from the ringing sound elicited on percussion it was evidently dense and hard. These circumstances, combined with the irritability of the bladder, made me decide upon the performance of lateral lithotomy. A rectangular staff was introduced, and, in the absence of any of my colleagues, was held by Mr. Makeham, one of my dressers. No difficulty was experienced in reaching the bladder; but the viscus being empty, there was no gush of water to carry the calculus within the grasp of the forceps. As soon as the calculus was seized, it was found impossible, without undue force, to extract it through the limited opening made in the prostate. I therefore introduced my left index-finger and cautiously enlarged the opening by incising the prostate on the same side for a quarter of an inch with a probe-pointed knife slid along the finger. The neck of the bladder apparently remained intact. The stone then came out without effort. It was solitary. The patient was the subject of piles, brought on no doubt by the constant straining and frequency of micturition. The parts generally were vascular; and there was some smart hæmorrhage from the superficial branches of the pudic, one of which required ligature. Some oozing from the prostate was soon stopped by the introduction of ice into the wound and into the rectum. The tube was not used; in fact, I now generally dispense with it both in children and adults. The stone was chiefly composed of lithic acid. It was ovoid and flattened, and measured 2¼ in. in its longest diameter, and nearly 1 in. in thickness. It weighed 1¾ oz. Its surface was slightly nodular and without facets. A hypodermic injection of ergotine frequently used after operations to ensure contraction of small arteries was administered before the patient was sent to bed. On Dec. 14th he seemed very well; no hæmorrhage; had a good night, and took his breakfast heartily. Temperature 100·2°.—15th: Going on well; no pain; sleeps well; appetite good. Temperature 99·2°, gradually coming down to normal. Bowels well open, and passes a little urine by the natural passage.—22nd: Has progressed without a bad symptom. Temperature normal. Most of the urine passes through the wound. The patient made a rapid and excellent recovery in every respect, and was able to leave the hospital cured in a few weeks.

Remarks.—Prior to the introduction of "litholapaxy" the foregoing case would have illustrated very well the circumstances under which lithotomy should be preferred to lithotrity. The size of the stone and the extreme irritability of the bladder, which could not be induced to retain any water, would have been the determining points in the case. At the present time it is, perhaps, scarcely possible to fix a decided limit of size at which lithotrity should end and lithotomy begin, the practice of continuous crushing and removal of fragments at one sitting having abolished one of the main objections to the application of lithotrity to large calculi. It was not so much, therefore, the size and hardness of the calculus as the resentment of the bladder which decided a resort to lithotomy as the safer operation for the patient to undergo. The temperate habits of the patient and his healthy appearance led to the belief that his kidneys were free from organic disease and that he would bear the operation well, and the belief was justified by the result. The patient when last heard of (at the beginning of 1884) was in good health.

CASE 5. *Large vesical calculus in a female; vaginal lothotomy; cure.*—Elizabeth B——, aged seventeen, collar dresser, a stout pasty-looking girl, was admitted into the London Hospital on July 3rd, 1883, from the out-patient department. She stated that nine months previously she passed blood in her urine, which dribbled away from her. The dribbling lasted two months and then passed off. About a fortnight before admission she had to pass her urine twelve or fourteen times in the twenty-four hours, sometimes only a tablespoonful at a time. Lately she had not seen blood in her urine.

On admission she complained of frequency of micturition and of pain during the act. She had to strain to pass urine. On examination with the sound a stone of large size was at once detected. The urine was found to be remarkably pale and contained urates, but no phosphates, as a deposit.

On July 25th the patient was anæsthetised and a lithotrite introduced into the bladder, when the great size of the stone became apparent. As it was not easily grasped and as the urethra was not readily dilatable, I decided on removing the stone at once through the vagina. A duck-bill speculum was introduced into the vagina and a grooved staff into the bladder, and an incision was made through the anterior vaginal wall, the wound being enlarged with a blunt-pointed bistoury both upwards and downwards. The stone was then seized with the forceps and with some difficulty extracted, care being necessary to avoid bruising the edges of the wound. After extraction the bladder was washed out and the edges of the incision brought together with five or six silk stitches, some of the stitches being made to include the mucous membrane of the bladder. An S-shaped catheter was retained in the bladder for a few days.

The patient went on very well after the operation till July 28th, when she was found to wet her bed at night. The bladder and vagina were daily washed out, and no fistula was detected by the house surgeon; but on examination on August 11th urine was seen to pass into the vagina from the bladder, and I removed one or two stitches in the middle of the wound, which had become loosened. On the 14th I removed the remainder of the stitches, and perceived that the incision had healed save in the centre, where a small fistulous opening remained. This was cauterised with the nitrate of silver stick. On the 16th it was noted that the urine came through the urethra and there was no incontinence either by day or night. The urine was normal. The patient remained in till the early part of September, gaining in weight and free from discomfort. Before leaving she was examined with the speculum, and the wound was closed in its whole extent. The stone, which was of an oval shape, weighed nearly three ounces, and measured in the long circumference six inches and in the short five inches and a quarter. It was composed externally of a thick layer of phosphates. In the interior, situated excentrically, there are some rings of lithates, alternating with phosphates, and in the centre a nucleus, consisting apparently of lithic acid. A peculiarity in the patient's dietary, which might hold a causal relation to the calculus, is mentioned in the notes. She was very partial to pickles of all kinds, and had eaten them largely and almost daily for a long time.

Remarks.—Whilst lithotrity is applicable to the majority of cases of stone in the female there are some cases which, I think, are better treated either by extraction or lithotomy. For small calculi dilatation of the urethra with the finger and extraction with forceps can be carried out without inducing incontinence. Where lithotomy is selected I should certainly give the preference to the vaginal operation, avoiding the urethra altogether. If a clean incision is made and all bruising of the edges of the wound avoided, the wound can be immediately closed after extraction, and no fistula need remain. It is generally recommended that the mucous membrane of the bladder should not be included in passing the stitches. I departed from this recommendation in the present instance without disadvantage.

Finsbury-square, E.C.

SANITARY INSTITUTE OF GREAT BRITAIN.—The exhibition of sanitary apparatus and appliances and articles of domestic use and economy, to be held at Leicester from Sept. 22nd to Oct. 10th in connexion with the eighth autumn congress of the institute, is divided into five classes. The first relates to building materials, construction, and machinery; the second to water-supply and sewerage; the third to heating, lighting, and ventilation; the fourth to personal hygiene, foods, and disinfectants; and the fifth to articles of sanitary interest not included in the above classes, such as scientific instruments, books and periodicals, models and drawings, prevention of accidents, respirators and face-guards for unhealthy occupations, fire-preventing appliances, methods for the disposal of the dead, &c.

ON THE

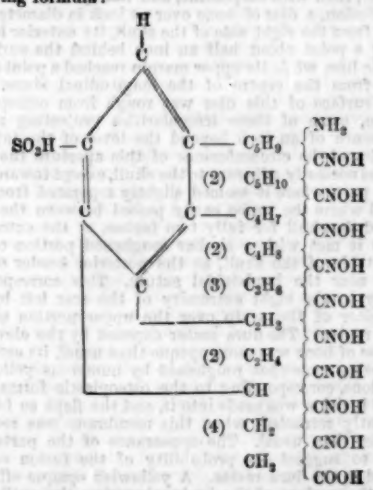
ORIGIN AND FORMATION OF LACTIC ACID, CREATINE, AND UREA IN MUSCULAR TISSUE.[1]

BY P. W. LATHAM, M.A., M.D., F.R.C.P.,
DOWNING PROFESSOR OF MEDICINE, CAMBRIDGE, AND SENIOR PHYSICIAN TO ADDENBROOKE'S HOSPITAL.

AFTER pointing out that sarco-lactic acid differed from fermentation lactic acid, and might be regarded as a mixture of ethidene and ethene lactic acids, these being obtained by converting ethylic and ethene alcohols into cyanhydrins, and then acting upon them with acids or alkalies, Dr. Latham suggested that the dehydration of the glycines or amido-acids, glycocine, leucine, &c., could give rise to these cyanhydrins—a molecular change taking place in the conversion of CO . NH, from the dead state to the living, into CN . OH—that by dehydration of the glycines generally the following change would take place:—

$$3C_nH_{2n}\begin{cases}NH_2\\COOH\end{cases} = C_nH_{2n}\begin{cases}NH_2\\CN\,.\,OH\\CN\,.\,OH\\COOH\end{cases} + 2H_2O$$

Then by dehydrating six molecules of glycocine and three of each of the other glycines in the series up to leucine, together with a sulphur compound and attaching them to a benzene nucleus (taking the formula for tyrosine as an example), we should have a compound represented by the following formula:—



the numbers in the brackets representing the number of times that cyanhydrin is repeated in that group, and the composition of the compound would be $C_{72}H_{113}N_{18}O_{22}S$; which is almost identical with the formula given by Lieberkühn—viz., $C_{72}H_{112}N_{18}O_{22}S$.

By hydration of these cyanalcohols the corresponding acid would be formed and ammonia liberated, which, however, combining with the next molecule higher up in the chain, would form a cyanamide. In this way the molecules being detached from the benzene nucleus, we should get the following compound:—

$$\begin{matrix}C_2H_4\\CH_2\\CH_2\end{matrix}\begin{cases}OH\\CN\,.\,OH\\CN\,.\,NH_2\\CN\end{cases}$$

[1] Abstract of a paper read before the Cambridge Philosophical Society, May 11th, 1885.

Three different conditions now present themselves: (1) the molecule $CH_2\begin{cases}NH_2\\CN\end{cases}$ may become detached, or (2) the molecule $CN\,.\,NH_2$ or (3) the larger molecule $\begin{matrix}CH_2\\CH_2\end{matrix}\begin{cases}OH\\CN\,.\,NH_2\\CN\end{cases}$ may be separated from the chain. In Case 1 we should have by hydration

$$\begin{matrix}C_2H_4\\CH_2\\CH_2\\CH_2\end{matrix}\begin{cases}OH\\CN\,.\,OH\\CN\,.\,NH_2\\CN\end{cases} + H_2O = \begin{matrix}C_2H_4\\CH_2\end{matrix}\begin{cases}OH\\CN\,.\,NH_2\\CN\end{cases} + CH_2\begin{cases}NH_2\\COOH\end{cases}$$

and so on, the remaining two molecules by hydration being converted into $CH_2\begin{cases}NH_2\\COOH\end{cases}$ glycocine, $C_2H_4\begin{cases}NH_2\\COOH\end{cases}$ alanine, and NH_2, which last passes on to form another cyanamide in the chain.

If, on the other hand, the molecule $CN\,.\,NH_2$ is detached, we have

$$\begin{matrix}C_2H_4\\CH_2\\CH_2\end{matrix}\begin{cases}OH\\CN\,.\,OH\\CN\,.\,NH_2\\CN\end{cases} = \begin{matrix}C_2H_4\\CH_2\\CH_2\end{matrix}\begin{cases}OH\\CN\,.\,OH\\CN\end{cases} + CN\,.\,NH_2$$

and there is formed the next cyanalcohol in the series $CH_2\,.\,CH_2\begin{cases}OH\\CN\end{cases}$ or $C_2H_4\begin{cases}OH\\CN\end{cases}$, and cyanamide; the latter with water forming urea:

$$CN\,.\,NH_2 + H_2O = CO\begin{cases}NH_2\\NH_2\end{cases}$$
urea.

In this way we pass from the lower cyanalcohols to the higher with the formation of urea, the two molecules of CH_2 combining to form C_2H_4. From this and from the other form of $C_2H_4\begin{cases}OH\\CN\end{cases}$ higher up in the chain, by hydration, lactic acid would be produced possessing the ordinary characters of sarco-lactic acid. In Case 3 by hydration we should have—

$$\begin{matrix}CH_2\\CH_2\end{matrix}\begin{cases}OH\\CN\,.\,NH_2\\CN\end{cases} + H_2O = \begin{matrix}CH_2\\CH_2\end{matrix}\begin{cases}NH_2\\CN\,.\,NH_2\\COOH\end{cases}$$

$$= CN\,.\,NH_2 + \begin{matrix}CH_2-NH_2\\CH_2-COOH\end{matrix}$$

$$= C\begin{matrix}HN\\HN\end{matrix}\!\!\diagup\!\!\diagdown\begin{matrix}CH_2-NH_2\\CH_2-COOH\end{matrix} + \begin{matrix}CH_2-NH_2\\CH_2-COOH\end{matrix}$$

$$= NH=C\begin{matrix}NH_2\\NH\,.\,CH_2-CH_2-COOH\end{matrix}$$

$$= NH=C\begin{matrix}NH_2\\N\,.\,CH_2-CH_2-COOH\end{matrix}$$

the ordinary formula for creatine—and according to this we ought to obtain creatine artificially from ethene alanine. The fact that the cyanalcohols might be transformed into some acid and the different cyanamides, two and three molecules of the latter easily condensing with elimination of ammonia, was referred to as offering some clue to the phenomena of rigor mortis and the coagulation of the blood.

CITY ORTHOPÆDIC HOSPITAL.—The thirty-third anniversary festival in connexion with this institution was held on the 15th inst. The charity was founded in the year 1851, to give free advice and assistance to poor persons of every nation suffering from club-foot and curvature of the spine, and contractions and distortions of the limbs. During nearly thirty-five years of its existence it has relieved 45,548 cases of deformity. The number of patients admitted to treatment during the past year was 2503.

CASES

ILLUSTRATIVE OF CEREBRAL SURGERY.

By WILLIAM MACEWEN, M.D.,
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(*Concluded from p. 883.*)

CASE OF MONOPLEGIA OF LEFT ARM AND LEG DUE TO CORTICAL LESION.

Summary.—Left-sided motor monoplegia of arm and leg, preceded by muscular twitchings and tingling sensations, without loss of sensation, due to syphilitic lesion; cortical lesion in right motor area, superior half of ascending frontal and parietal convolutions, with probable involvement of paracentral lobule; trephining; internal table of osseous disc removed, showing osteophytic deposits; dura mater thickened; plastic membrane-like effusion over anterior and posterior ascending convolutions and bridging fissure of Rolando; resistant portion of brain towards paracentral lobule; incision into brain; escape of grumous fluid with pultaceous particles; marked absence of brain pulsations prior to removal of this matter; slight return after evacuation; exploration of interior of skull; discovery of osteophytic projections on occipital bone; second trephining to remove these; reimplantation of osseous fragments; complete recovery from operation, and power of left arm and leg restored so as to enable patient to walk about and to perform household work.

CASE 2.—Mrs. McK——, aged twenty-five years, was admitted into Ward 22 of the Glasgow Royal Infirmary, suffering from left-sided hemiplegia. She had been previously under the care of two physicians, besides having been a patient in the Western and Royal Infirmaries. In the medical wards of the latter institution she had been under the care of Dr. Wood Smith, who had treated her for the hemiplegia by every medicinal means at his disposal without benefit, and who ultimately recommended her to be placed under my care, in the hope that something surgical might be done for her relief. She had a clear history of syphilis of more than four years' standing. The secondary symptoms had evidently been slight. Among other manifestations of the tertiary period was an ulcer situated over the upper part of the occipital bone, principally on the left side. There was a story of an injury over the same quarter, and the patient was inclined to attribute the ulcer to the blow rather than to the disease. For this tertiary affection she had been treated medicinally, with the result of the complete healing of the sores. Eight months after the ulcer on the head had healed, and while she felt herself otherwise in good health, she began to experience a tingling sensation in the muscles of the left arm, and subsequently in those of the left leg, which was occasionally accompanied by slight muscular twitches. These continued for about six weeks, the sensations gradually increasing until numbness supervened, spreading over the affected parts, and taking the place of the tingling sensations. Regarding the word "numbness," the patient used it, though she said that she could feel quite well in these parts, and that at no time had the sensation of touch been impaired. Towards the end of this period the left arm, which had been gradually becoming more feeble, had so far lost its power that she was unable to use it, and a "short time" afterwards she was obliged to go to bed, as she could not stand. Eight weeks from the commencement of these symptoms she had lost all power of the left arm and leg. Three months after the beginning of these symptoms she was admitted into my ward. On examination, the patient was found to have absolute motor paralysis of the arm and leg, accompanied by sufficient rigidity to indicate a slight degree of spastic condition of the muscles. The sensation over the affected limbs was unimpaired. She complained of languor and a general sense of oppression. Her intelligence was dull and her memory defective. Tapping the head gave rise to disagreeable feelings, but there was no specially localised sensations with the exception of a tenderness over the occipital region at the site of the scar left by the tertiary ulcer. It was apparent that there was a lesion or lesions in and confined to the cortical areas controlling the movements of the leg and arm. The absence of anæsthesia in the affected parts from the very beginning of the attack pointed to the lesion being cortical rather than central. According to Charcot and Pitres cortical cerebral monoplegias affecting the arm and leg coincide with lesions in the superior half of the ascending frontal and parietal convolutions. Viewing the pathological conditions which existed here and the clinical history, it was possible that two separate lesions were present acting coincidently, the one on the arm the other on the leg, a short interval of time existing between the initial manifestation of each. In that case, the lesion affecting the power of the arm would involve chiefly the middle of the ascending frontal and to a less extent the corresponding part of the ascending parietal; while the paracentral lobule would be looked to as the seat of the lesion affecting the lower limb. The history showed that the lesion at first induced cerebral irritation, though its true destructive nature was subsequently evinced, and descending degeneration of the motor tracts was imminent, if it had not already set in. The nature of the affection from a pathological standpoint was clearly syphilitic, probably in the form of a gumma.

As the treatment, especially that by counter-irritation, and the prolonged administration of anti-syphilitic remedies, had failed to effect the slightest improvement, it was deemed advisable to have recourse to operative measures. Before trephining was performed, three weeks were permitted to elapse, during which no anti-syphilitic medicines were given, partly with the view of ascertaining whether those formerly exhibited would produce any effect, and partly to avoid obscurity as to the result of the operation. By elevating a large disc of bone so as to expose the greater part of the upper portion of the ascending convolutions it was believed that the lesions affecting the arm and leg could be removed, and at the same time, if the paracentral lobule was involved, it could be reached by making a transverse incision into it through the brain tissue.

Operation, June, 1883.—The hair having been freshly shaven and the scalp thoroughly cleansed, first with soap and water, then with turpentine, and finally with an antiseptic solution, a disc of bone over an inch in diameter was elevated from the right side of the skull, its anterior border touching a point about half an inch behind the auriculo-bregmatic line, while its upper margin reached a point about an inch from the centre of the longitudinal sinus. The internal surface of this disc was rough from osteoplastic formation, some of these irregularities projecting nearly one-sixteenth of an inch beyond the level of the internal table. Round the circumference of this aperture the dura mater was normally adherent to the skull, except towards the posterior part, where it seemed slightly separated from the bone, and where the probe easily passed between the dura mater and the skull for fully two inches, at the extremity of which it met with a similar roughened portion of the internal table of the skull, at the posterior border of the parietal, near the lambdoidal suture. This corresponded internally to the right extremity of the scar left by the former ulcer of the scalp over the upper portion of the occipital region. The dura mater exposed by the elevation of the disc of bone was more opaque than usual, its external surface being somewhat roughened by numerous yellowish indentations, corresponding to the osteoplastic formations. A crucial incision was made into it, and the flaps so formed were gently retracted, when this membrane was seen to be thicker than usual. The appearance of the parts was such as to suggest the probability of the fusion of the arachnoid to the dura mater. A yellowish opaque effusion covered the surface of the brain, obscuring the outline of the convolutions and bridging the fissure of Rolando. On attempting to remove this it was found to be very friable, and it came away in minute portions, and was evidently composed of masses of leucocytes held together by fibrin. On the removal of this effusion it was seen to have covered the middle and upper portion of the ascending frontal, dipping slightly into and covering the fissure of Rolando, as well as the anterior border of the ascending parietal convolution. It was thickest over the upper portion of the ascending frontal and shaded off towards the lower end of the middle third, and while thick over the fissure of Rolando, it formed only a thin layer on the anterior border of the ascending parietal. The surface of the exposed brain was softer than normal, and there were as yet no discernible pulsations. Towards the upper third of the trephine opening a portion of the brain was felt to offer greater resistance to the finger on palpation than the surrounding parts. This sensation proceeded from the interior of the brain, in the direction of the paracentral lobule, a layer of brain tissue intervening between this more resistant structure and the

finger. The boundaries of this denser portion could not be well defined, but it was at least the size of a large filbert. An incision was made through the upper portion of the ascending frontal at its posterior margin towards this firm structure, and after cutting into it a quantity (probably about two drachms, though this was not measured) of grumous fluid mingled with minute pultaceous particles quickly escaped; after which the former resistance of the part entirely disappeared, and in its stead the brain surface seemed slightly collapsed, and the cerebral tissue felt softer than usual. The cerebral pulsations, which hitherto had been unobserved, were now barely discernible; they were not so distinct as to be recognised by many of the surgeons round the table. The objects for which the operation was undertaken having been attained, the flaps of the dura mater were replaced, and an aseptic sponge was laid over the opening in the skull. It was, however, considered advisable to elevate a small disc of bone from the posterior portion of the parietal near its junction with the occipital, at the spot where the former exploration revealed the presence of osteophytic deposits, so as to prevent the possibility of future irritation. This was done. The osteophytic irregularities were found to project, for nearly an eighth of an inch, from the normal level of the surface of the internal table. The dura mater, with the exception of slight opacity and indentations corresponding to the osseous irregularities, looked healthy; and the cerebral pulsations were distinctly evident through it. The osteoplastic formations were cut off by the chisel, along with a portion of the internal table of the skull. The remainder of the disc was then divided by the chisel; the pieces of bone were reimplanted and the scalp stitched over them, a decalcified chicken-bone drainage-tube having been placed between the scalp and the skull. The large osseous disc first removed, which since its elevation had been kept in an aseptic sponge, was now divided into small portions, care being first taken to render the internal table of the skull smooth. These portions were reimplanted, space being left between the fragments for drainage. The scalp was then accurately brought together by a few chromic stitches, a small decalcified chicken-bone drainage-tube having been introduced at the lower angle of the wound. The scalp was then dried and powdered with iodoform, except at the parts where the drainage-tubes issued, and which were covered by a small piece of moistened gauze. A eucalyptus gauze dressing was applied over all, and secured by a portion of elastic webbing.

Forty-eight hours after the operation the patient stated that she felt much relieved. The numbness in her left leg had disappeared, though it still remained to a slight extent in her left arm. Four days afterwards the numbness in her left arm had disappeared, and she could move her toes. There was no power of movement in the muscles of the arm or hand. At the end of a week she moved her toes freely and her foot partially. She had also regained the power of moving her fingers to a limited extent, and there was likewise an ability to move the whole arm, principally from the shoulder. At the end of a fortnight she could raise her whole left lower limb from the bed, flex the knee to a slight extent, and move the toes and ankle freely. She flexed and extended the fingers, opened and shut her hand, though the power of grasp was feeble. Her arm she raised to very near the level of the shoulder, though the elbow could neither be flexed nor extended. Three weeks after the operation all these movements had improved, she had greater strength of grasp, and more control over the movements of the lower limb. Her temperature had never been above normal; and there was no stain through the dressings, which had not been touched since the operation. They were, however, removed at the end of this period, and the wounds appeared quite closed. There was only a little blood-stain on the dressing. The extremities of the decalcified drainage-tubes, which had projected slightly beyond the external level of the scalp, were found detached and lying in the dressing. As a precautionary measure, a fresh antiseptic dressing was applied. During the last week the patient had expressed herself as so well that she desired to rise from bed, to which she had hitherto been closely kept and carefully watched. She was, however, advised to remain in bed for two weeks longer. Her diet, which up to this time had been solely milk, was now slightly varied, small quantities of bread and beef-tea being permitted. Six weeks after the operation the dressings were removed from the head, the wounds being found quite firm. The reimplanted bones were firmly attached to the skull. She was permitted to rise from bed, and a more liberal diet was given. Two months after the operation she could walk about unaided, but with a hemiplegic gait, a certain amount of dragging of the left leg, flexion at the knee being still very slight. She could open and shut her hand; but while she could grasp very firmly with her left hand, once she closed the hand on any object it was difficult for her to open it again, unless her attention became diverted. She improved steadily in bodily health and strength until she was able to do ordinary house work, and to walk about easily, though still with a drag of her left lower limb, and to use her left arm when alone, or when not excited, with considerable advantage.

This patient has since reported herself on many occasions at the hospital. The last time she was seen in April, 1885, one year and ten months after the operation. Notwithstanding the fact that since she was dismissed from the hospital she had lived under the most adverse circumstances, her previously affected side was still performing its function as well as formerly. She had walked a mile that day to the hospital, and intended to walk the same distance to her home. She performed her household duties by herself, and stated that she was quite able for them.

There have been seventeen cases under my care in which operations have been performed upon the skull and its contents for the relief of cerebral pressure or other brain lesion. In fourteen trephining was performed and in three elevation of the bones. Out of these seventeen cases, there were three deaths occurring in patients whose prospect of recovery was placed at a bare possibility. In these three, the operation of trephining in no way hastened death; on the contrary, there was reason to believe that it had prolonged life. In eleven of these, the bones which had been elevated were divided and reimplanted. The reimplanted bones in all but two cases succeeded perfectly, and in these two the majority of the fragments lived. In the fourteen cases which recovered there were no untoward symptoms after the operation, the temperature remaining normal throughout, and in almost all the wounds healed without pus production. Hernia cerebri has not followed as a result of any of the operations. It was formed on one occasion at the moment of opening the skull from the acute inflammation which was present in the brain prior to the opening of the skull.

In 1876 I had diagnosed an abscess in Broca's lobe (posterior part of the base of the third left frontal convolution) from the symptoms which were exhibited, and had urged the opening of the abscess, which was, however, negatived by the parents until it was too late to do anything effectively for the relief of the patient. The operation was, however, performed on the dead body, the same steps having been taken as would have been had the operation been performed on the living. The abscess in the brain was opened by the bistoury inserted through the trephine opening, thus proving conclusively the accuracy of the diagnosis, and showing that the operation proposed was the correct surgery of the case. On many subsequent occasions localising symptoms, such as those arising from lesion in the motor area, have been made use of in aiding the diagnosis, and in a number of instances such symptoms have been the only guide to the cerebral lesion. Two of these cases are here given. For the guides which we have received for the localisation of function we are indebted to many observers—Broca, Charcot, Pitres, and Hughlings Jackson on the side of patient clinical research, and Hitzig, Ferrier, and others from the purely physiological side, aided by experiments on animals. Comparatively little advantage has hitherto been taken of these observations as a guide to surgical operations. I had therefore much pleasure in describing to Professor Ferrier, when he visited my wards in Glasgow in the spring of 1884, some cases of the same nature as those here presented, and I was glad that he so soon afterwards had the opportunity of advising and assisting Dr. Hughes Bennett and Mr. Godlee in the case in which the latter removed a tumour from the brain. Mr. Godlee's case unfortunately died from hernia cerebri, and Professor Ferrer asked me some questions on the frequency of hernia cerebri after the operations which I have had. I could have answered that in no case has hernia cerebri been a result of any operation performed by me. But in one instance false hernia cerebri did form at the moment of opening the dura mater. A large mass was extruded, consisting of red blood-corpuscles, leucocytes, and a few pus-corpuscles—a mass on the eve of abscess formation. It is of course clear that since this was protruded at the moment of opening the membranes, this material must have been in existence for some time prior to the operation, and was therefore not the result

of the operation. I consider that such a case is of great importance, as showing how false hernia cerebri may form after operations on the brain. False hernia cerebri is supposed by most surgeons to form from a septic condition of the wound, and I quite agree that a septic condition is probably the most frequent cause of false hernia cerebri, but it must be recognised as only *one* of the causes of irritation which set up this condition. We have round most tumours and cerebral lesions a limited area of softening or encephalitis. If such an area exists, it requires to be considered as one of the elements likely to give rise to hernia cerebri, and therefore as one of the risks of the operation. If those observers who have done so much in the way of diagnosing cerebral affections could give precise indications which would enable us not only to say that a tumour or other lesion existed at a certain part of the brain, but also how much and to what degree the brain tissue in the vicinity of this lesion was affected by inflammation, it would enable us to prognosticate whether hernia cerebri would be likely to result from the operation, to anticipate its formation, and to prepare the way for its treatment. It is clear, then, that we have two points to consider: not only the lesion (tumour or syphilitic gumma, &c.), but also the amount of localised encephalitis existing at the time. It is further clear that we ought to try to allay this secondary irritation round the tumour or other lesions prior to performing the operation. It may, therefore, be summed up thus:—In certain cases of acute encephalitis involving the surface of the brain, where the inflammatory action is sufficiently far advanced, false hernia cerebri will form, provided an aperture be made through the skull and the membranes to permit of this extrusion. Unless the inflammatory action in the brain substance has taken place to a sufficient extent, false hernia cerebri will not form, even supposing opportunity for extrusion be afforded by an aperture in the external parts. Healthy brain tissue will not be extruded through an aperture in the skull except as the result of violence or pressure exercised from within. Operations on brain tissue, which is not in this state of acute and advanced inflammatory action with blood extravasation, will not produce hernia cerebri, provided that after the operation the brain tissue is not irritated to a sufficient extent to induce this amount of inflammatory action. The chief cause of false hernia cerebri, after intra-cranial operations, is decomposition; and this cause can be prevented by the use of antiseptics. If inflammation in the brain exists at the time of the operation, hernia cerebri may form, notwithstanding the use of antiseptics.

CASE OF FRACTURE OF LARYNX.

By JOHN B. BERRY, M.D., C.M. EDIN.

DURING the afternoon of February 6th I was called to see G. L——, aged twenty-one. He was reclining on a sofa, looking very pale. Extending from the tip of the chin to just above the hyoid bone was a superficial wound. The voice was like that of laryngitis. The prominence of the thyroid cartilage was gone. Placing my hand over the throat and requesting the patient to swallow, I detected unmistakable crepitus of the moving larynx. A more careful examination revealed what felt like a separation of the wings of the thyroid cartilage. The history of the accident was briefly this. About twenty minutes before I saw him he was working a circular saw, and was suddenly struck in the throat with great force by a large piece of wood coming from below upwards. For a few moments he had a hard struggle for breath, but managed to keep from falling by leaning against a bench. Water was brought to him, but he declined it as he feared it would choke him. With the help of two men he walked home, a distance of about 500 yards from his work. Having applied a warm-water dressing to the throat, the patient was put to bed, his head and shoulders being raised. An hour later I saw the patient again in conjunction with Mr. Chaffers, whose help I sought when I saw the case was of such gravity. My diagnosis was confirmed, and seeing the patient was free from urgent symptoms, the breathing being quiet and full and the condition of shock gradually passing off, we considered it best to continue the warm-water dressings and forbid anything being taken by the mouth except ice, leaving word that any change in the breathing should be immediately reported to us. About 1.30 next morning I was called up, as the patient was reported to be choking. After sleeping for about an hour and a half, during which time he breathed rather noisily, he woke up somewhat suddenly and at once began to struggle for breath. When I arrived he was unconscious, the eyes were open and fixed, the pupils dilated, the face pale, and the deep spasmodic efforts to breathe were failing. Having sent for Mr. Chaffers, I at once performed laryngotomy. Still no air seemed to enter, and no mucus escaped from the tube. Having satisfied myself the tube was clear and that no blood was obstructing the air-passages near the wound, I enlarged the opening and replaced the tube, with no better result, death taking place after a few more respiratory efforts had been made. Half an hour after death Mr. Chaffers and myself examined the larynx and trachea as well as we could through the operation wound. Besides the separation of the wings of the thyroid oblique lines of fracture were made out on each side, through the wings themselves. Within easy reach of the finger, hanging down the trachea by a mere shred of fibrous tissue was a part of the left wing of the thyroid cartilage itself, the size of a finger-nail, apparently the lower front angle; this was easily removed. I regret no post-mortem was allowed, as I am still in doubt whether to attribute the asphyxia entirely to the one piece of cartilage found, which was not wedged in the trachea, but simply lying flat against the anterior surface, but it may have acted like a valve during inspiratory efforts. During life, I may add, there was no spitting of blood, and after death perfectly white frothy mucus welled up from the throat.

Keighley.

A Mirror OF HOSPITAL PRACTICE, BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

SARCOMA OF THE KIDNEY; NEPHRECTOMY; CURE.

(Under the care of Mr. CROFT.)

THIS case is a very interesting one, few cases for removal of the kidney for sarcoma being on record. In the Transactions of the Medical and Chirurgical Society, vols. 63 and 64, a list of cases in which the operation had been performed is given by Mr. Barker. Two of these were nearly the same age as the patient who was under the care of Mr. Croft, but in one the disease had existed for two years and a half, and in the other for one year. In each the operation was successful, but in the latter recurrence had taken place in the neighbouring glands eight months after the operation. The prognosis is more favourable in the following case, where the disease had produced symptoms for seventeen days only before operation.

For the following notes we are indebted to Mr. W. J. Staddon, dresser.

T. H——, a boy aged three, was admitted under the care of Mr. Croft on Feb. 3rd, and left cured on March 17th, 1885. The family history was good. The patient had always enjoyed good health, and was apparently quite well until he was noticed to have passed blood with his urine on Jan. 21st of this year. He passed blood again on the 27th and on the 29th. On the 31st the medical attendant noticed swelling in the abdomen.

On admission, the boy was looking very healthy and well nourished. Examination of the abdomen showed a distinct projection on the right side, which on palpation was found to be due to a hard, somewhat elastic, movable tumour, not moving with respiration, which extended into the right loin, the surface of which was marked by large irregular bosses. Above, the free edge of the liver could be felt overlapping it. Dulness extended from the liver to the crest of the ilium, backwards to the spine, and forwards to the middle line, excepting in the position of the ascending colon, where there was resonance. The remainder of the abdomen

appeared healthy; there was nothing abnormal in the chest. Urine: sp. gr. 1022, clear, of a light-straw colour, acid, no albumen, no cells, no casts.

Feb. 5th.—The patient was placed under chloroform and examined by Mr. Croft. No stone was detected. There appeared to be a rounded body of small size to the inner side of the growth, possibly an enlarged gland. Urine: sp. gr. 1035; very acid; excess of urea; no sugar.

7th.—The patient having been placed under chloroform, Mr. Croft removed the right kidney. A slightly oblique incision was made between the crest of the ilium and the last rib, about four inches and a half in length, ending anteriorly in the linea semilunaris; this incision was carried down to the peritoneum, when all bleeding points were ligatured. This incision not being large enough to admit of the tumour being extracted, a vertical one was made along the linea semilunaris about four inches in length, opening the peritoneum to the extent of two inches and a half; the tumour was then brought out of the wound as far as the pedicle, which was rather short, would allow. The pedicle was then ligatured in two sections: the first ligature (of silk) included the vessels, and the second ligature (of catgut) was placed on the ureter. After removal of the tumour, the peritoneal cavity, so far as it had been exposed, was sponged out, and the edges of the peritoneum brought together with continuous catgut sutures, after which the skin flaps were brought together with silk, a drainage-tube being placed in the most dependent part. The wound was dressed with oiled-silk protective, iodoform, iodoform gauze, and salicylic wool, gauze bandages being used, and over all a flannel bandage. The carbolic spray was used from the time that the peritoneum was exposed. The patient was very sick towards the end of the operation. The parts removed formed a mass as large as an adult fist. Examination showed the greater part to have been replaced by a large sarcomatous growth, there being only normal renal structure on the circumference of the growth, above and below. The growth was soft, elastic, bulging on section, presenting in parts an almost gelatinous appearance; in others there were small hæmorrhages. The growth projected into the pelvis of the kidney to some extent at one or two points, and also into the renal vein. Later microscopical examination proved the growth of round-celled character.

9th.—Has been going on very well since the operation, having had neither pain nor sickness. Pulse 144; tongue rather dry, slightly furred. Taking milk, tea, and toast. Wound dressed yesterday and looking well.

10th.—Pulse 114; bowels acted after an enema. Wound dressed.

12th.—Pulse 116. He had retention of urine for several hours during the night, and this morning there is some epididymitis on the right side.

15th.—Wound redressed, two stitches removed and the drainage-tube shortened; very little discharge.

23rd.—Pulse 127. Fluctuation having been felt in the right side of the scrotum an incision was made, giving exit to a small quantity of laudable pus. The operation wound was dressed; the granulations were found to be on a level with the skin, excepting where the drainage-tube had been.

March 11th.—Nitrate of silver applied to granulations on the right side. Most of the wounds have healed, as also the wound in the scrotum.

14th.—Got up.

16th.—Wound in right side almost perfectly healed, there being only a few small granulations not quite skinned over; is dressed with zinc ointment. The patient left on the following day, being very lively and looking remarkably well.

The highest temperature after the operation was 102° at 3 A.M. of the morning after the operation. For eight days there was an evening rise, varying from 99·6° to 101·4°; after that it became lower, rising, however, on more than one occasion to over 100°; this was in all probability connected with the epididymitis. The average daily quantity of urine was about 17 oz. after the operation. The patient continues in good health.

Remarks by Mr. CROFT.—The rapid recovery in this case was partly due to the fact that the operation was performed before the growth had infiltrated or attached itself to neighbouring structures. Its enucleation did not necessitate dissection or the use of any force. Authors on nephrectomy have not laid down any rule for the closing of the peritoneal wound when this membrane has been disturbed in the course of the operation. It is worthy of observation in this case that the peritoneal wound was sutured independently of the rest of the wound; thus the cavity was closed against any exudations from the section of the abdominal wall. It would have been impracticable to have treated this according to the rules laid down for closing wounds in the median line. The occurrence of epididymitis was not easy of explanation, as the structural connexion between the parts disturbed or ligatured in the loin is not direct or obvious. Retention of urine came on with the epididymitis, and had not existed before it. It would be interesting to know if other surgeons have met with this complication.

NEWCASTLE-ON-TYNE INFIRMARY.

PRIMARY SARCOMA OF THE RETRO-PERITONEAL GLANDS; DEATH; NECROPSY; REMARKS.

(Under the care of Dr. PHILIPSON.)

J. H——, aged fifty-six, an auctioneer's clerk, was admitted on Nov. 22nd, 1884, complaining of pain in the epigastric region of about six months' duration. His father and a brother died of consumption, and another brother of spinal disease. The patient has had to lift very heavy weights; he has had good food and lodging, and has been fairly temperate; has had three attacks of rheumatic fever. About six months ago he first experienced a dull uneasy sensation in his right side and passing across the lumbar portion of his back. Pain became more decided and was generally worse at night; it came on in paroxysms with intervals of several hours. Gradually the pain became worse and the intervals shorter, till now he has seldom ten minutes' freedom from it. He did his work up to the time of his admission.

When admitted the patient was found to be a man of 5ft. 7in. in height, and weighing 9st. 2lb. (he used to weigh 10st. 7lb.). He is slightly cachectic, and has the appearance of suffering acute pain. The tongue is foul, appetite good, but accompanied by great thirst; the pain rarely crosses the back now, but starts on the right side, crosses the abdomen at the level of the umbilicus, and ends in the left side. The pain is intensified by lying down, but is relieved by sitting up; the greatest relief, however, is got by kneeling before the fire with his elbows resting on a low chair; deep inspiration brings on or aggravates the pain. There is visible pulsation in the epigastric and upper part of the umbilical region; in the right hypochondrium and epigastrium a hard resistant body is felt, reaching in the middle line nearly to the umbilicus, and in the nipple-line about three fingers' breadth past the free edge of the ribs. This body moves with respiration. As far as can be made out, its surface is smooth and its edge regular, and it is not tender, though there is pain on deep pressure. There is no pulsation on the right side of the mass, but on the left the mass rises and falls with the aorta; there is no expansile pulsation. There is continuous dulness from the seventh rib downwards to the edge of the mass. At the apex of the left lung there are distinct signs of consolidation and softening.

December 5th:—Has lost 1 lb. since admission. The pain has become so bad as to necessitate injections of morphia. Temperature varies between 99° and 102° F.

31st.—Is still emaciating. Does not complain so much of pain, but shows decided dementia.

January 24th.—Death.

Post-mortem examination.—The liver extends downwards as felt during life. Its surface is smooth, except on the under side, where there are two nodules about the size of peas. The anterior margin is unusually thin and covers a tumour about the size of the fœtal head lying on the spine. This tumour is evidently glandular, and has the pancreas attached to its left side, in front of it the pylorus and four or five inches of the duodenum, and behind it the aorta. The outline of the tumour is fairly regular, but with globular projections at parts. On section it is pretty firm, but with soft portions here and there. On microscopic examination it proved to be a spindle-celled sarcoma. Lungs: The left apex contained some tubercular deposits and small cavities, while the right had a slight tubercular deposit. Heart: Mitral orifice narrowed and curtains thickened. Brain: Considerable amount of subarachnoid fluid. Kidneys: Normal. No other deposits besides the two on the under surface of the liver.

Remarks by Dr. PHILIPSON.—The chief interest of this case was in the differential diagnosis of a tumour situated

in front of the abdominal aorta, from aneurysm. The non-existence of aneurysm was inferred from the absence of bruit in the left vertebral groove, and its pulsation being non-expansile. The existence of cachexia was in favour of malignant disease; the age of the patient strengthened this supposition; the smoothness of the surface of the liver and its uniform edge indicated that the swelling was glandular, rather than associated with that organ. Another point of interest was the coexistence of malignant disease and tubercle, cancer and tubercle being regarded as antagonistic one to the other. The nodules on the under surface of the liver were regarded as secondary, or consequential on the glandular condition; primary cancer of the glands being rare, while secondary cancer is not uncommon.

Medical Societies.

OPHTHALMOLOGICAL SOCIETY.

Ciliary Nerves in Certain Diseases of the Eye.—Spontaneous Disappearance of Diabetic Cataract.—Nævus of Choroid.—Reflex Ophthalmitis.—Periodic Paralysis of Third Nerve.—Coloboma.—Rupture of Eyeball.

AN ordinary meeting of this Society was held on May 14th, Mr. Jonathan Hutchinson, F.R.S., President, in the chair.

The PRESIDENT intimated that the Local Government Board had consented to receive a deputation from the Ophthalmological Society on the subject of the prevention of blindness from ophthalmia neonatorum.

Dr. BRAILEY read a paper on the Condition of the Ciliary Nerves in Certain Diseases of the Eye. Examinations in ninety cases of the long ciliary nerves, usually of both the inner and outer sides, by sections taken at right angles to their course in the sclerotic, showed the following results. It must be remarked that, being cases of excision for disease, the morbid process had been in every case severe, and in most of considerable standing. In primary glaucoma (thirteen cases) the nerve might be perfectly normal, but in about 22 per cent. there were indications of neuritis, the changes being, however, usually so slight as not to be incontestable. In a larger proportion (50 per cent.) the nerves were swollen, their axis cylinders being large and indistinct, or not visible at all. It was observable also that the average size of these nerves in eyes with glaucoma, whether primary or secondary, was considerably (almost 50 per cent.) beyond that associated with normal tension. Probably this enlargement was due to swelling of the nerve fibrils, as it was found even where the microscopical structure appeared to be quite normal. It produced considerable absorption of the sclerotic through which the nerve passed, so that this condition was indicated, especially in the case of the nerve of the inner side, by a wide dark-bluish streak corresponding to the course of the nerve. In eyes exciting sympathetic disease the nerve itself was usually normal in structure, though it might show slight traces of neuritis. But inflammation round the artery and nerve, more marked round the former, was found in the majority of cases (85 per cent.). In the sympathetically affected eye it was also found, though not quite so commonly (66 per cent.). He had, however, but three cases of sympathetically produced inflammation to examine. In uveitis serosa—independent, however, of any relation to sympathetic disease—inflammation round the artery and nerve also occurred, spreading evidently from the former to the latter. In the five well-marked cases of suppurative panophthalmitis that had been examined, the condition was similar to that above remarked as found in eyes exciting sympathetic disease, except that the inflammation around the artery and nerve was well marked in every case. In other conditions, such as iritis and irido-choroiditis of various origin, the condition varied, inflammation in and around the artery and nerve being occasionally found, though far more often absent. Two cases may be particularised: one, a non-suppurative iritis occurring after an iridectomy preliminary to cataract extraction; the other, with changes like those of progressive myopia—viz., disseminated choroiditis at the posterior pole and posterior staphyloma after leucoma adhærens. In each of them there was round the artery much inflammation, which had extended into the corresponding half of the nerve. It was inferred from the above observations that inflammation of the ciliary nerves was not the means by which sympathetic disease was transmitted; also that inflammation round the nerves and their companion arteries was equally ineffective in this case, as it occurred at least as strikingly and as commonly in suppurating eyes. The corneal anæsthesia found in absolute glaucoma was explained by the degeneration of the elements of the nerve, which, together with the other changes noted in this disease, appeared to be secondary to the mechanical pressure upon them.—Mr. NETTLESHIP remarked that serous iritis was not recognised as due to sympathetic irritation. He asked what clinical evidence there was in Dr. Brailey's possession. Referring to cases of episcleritis about the front of the eye, he would like to know whether the inflammation extended along the outer surface of the sclerotic so as to involve the optic nerve and structures at the posterior part of the globe.

Mr. NETTLESHIP read a note on the Spontaneous Disappearance of Diabetic Cataract. So far as his literary researches went he had found that cases of the kind were very rare. Two cases were detailed in Dr. J. Seegen's work on Diabetes Mellitus. Seegen's first case was that of a man aged thirty-nine, who in July, 1863, about six months after the appearance of diabetes, noticed that his sight began to fail; the lenses were cataractous and hazy. Under treatment at Carlsbad the lenses cleared; the quantity of urine was reduced to one-half, but the percentage of sugar remained the same. In the spring of 1865 the lens again became opaque. The second case was that of a woman aged fifty-five, who was first seen in the autumn of 1867, soon after which the sight began to fail and became misty; she was treated for diabetes in February, 1868, and whilst under treatment the lenses became clear again. Dr. Tannahill's case was that of a coal-miner, who was seen when in prison. He had suffered from diabetes for eleventh months; both lenses were opaque throughout, the left more than the right. He was put on the ordinary diabetic diet, and had two grains of opium daily. Whilst under treatment his sight began to improve, the opaque lenses gradually cleared, and on inspection when he was discharged from prison no trace of cataract remained. No satisfactory explanation had yet been offered as the cause of diabetic cataract. The view that the lens contained sugar was a possible explanation, but the idea of a permanent degeneration was not borne out by the facts just narrated; moreover, there was a re-appearance of the cataract in one case. The abstraction of water from the lens owing to an increased density of the blood or fluids surrounding the lens was a likely explanation.—Mr. HUTCHINSON said that congenital cataracts in young rabbits sometimes cleared up.

Mr. J. B. LAWFORD read notes of a case of Nævus of the Choroid. The patient was a girl aged eight, who was brought to the hospital on account of pain in the left eye following a blow. The mother did not know how long the eye had been blind. There was a capillary nævus of the left side of the face from the forehead to the chin. There were no nævi elsewhere. The left eyelids were involved, and presented a slightly puffy appearance. The right eye was normal. The conjunctiva of the left eye was normal. The lens was opaque and yellow. There was no perception of light. The tension was + 2. The left eye was excised. On examination, the choroid surrounding the optic disc, and for a distance of 5 mm. to 7 mm. from its margin, was thickened (·5 mm. to 1 mm.), and spongy in appearance. Under the microscope this area was seen to be channelled throughout with vascular spaces of varying size, whose walls were formed only by the choroidal tissue. A few dilated capillaries were also visible. Beyond the limits of the nævus the choroid was normal. There was an infundibular detachment of the retina. The lens was shrunken and its fibres much disorganised. The iris was atrophied and adherent to the cornea at the periphery.

Mr. SIMEON SNELL read the notes of a case of a Recurrent Paralysis of the Third Nerve associated with attacks of Migraine. The patient, a little girl aged eight, first came under observation in Nov. 1883. A note made then states: "There is complete ptosis on the left side, with divergence of the eye and general paralysis of the third nerve; fundus oculi normal; refraction hypermetropic, about 1·5 D." It was ascertained that she had had a failing of the left eye since cutting her "eye teeth," at eighteen months of age; since this time she has suffered from attacks of pain in the head and sickness, and at these periods the eye has closed, and after

the subsidence of head symptoms, it commenced to open, but only very gradually became widely so again. These attacks have recurred about every six months. The severe part of one of these illnesses had just passed when she was first seen. Another attack came on in July, 1884, and the affection of the eye gradually passed away, as it had done before, and the condition was just as that described below. On Jan. 20th, 1885, she appeared at the infirmary with commencing drooping of eyelid; it began the day before. Next day the condition was characteristic of migrane, pain confined chiefly to the left side and over the left eyebrow. Ptosis was complete, and palsy of the other muscles supplied by the third nerve; the pupil was a little dilated, and did not act to light or accommodation. Recovery gradually took place in the ocular symptoms. On April 30th the eye was fairly wide open, but not quite so widely as on the sound side; there was divergence, but on effort a good deal of power of convergence; and movements upwards and downwards were extremely slight. The pupil was about the same size as the right, and acted very slightly to light or accommodation. V. (corrected) = $\frac{1}{10}$, and J. 16. There is a distinct neurotic history on both parents' side.—Mr. ERNEST CLARK had seen a somewhat similar case in a girl aged twelve. The attacks were preceded by vomiting and constipation, and attended with pain over the left eyebrow. The sight of the eye was dim. The pupil was slightly dilated; there was external strabismus and slight ptosis, which lasted a few days; the dilatation of the pupil lasted longer. The attack came on every six weeks. The teeth were very bad.—Dr. ORMEROD had also seen a case of recurrent paralysis in an elderly woman; the left eye squinted outwards. Some pain was experienced along the course of the supra-orbital nerve. There was nothing to suggest megrim. These attacks were not so transitory, and lasted two or three months. The first attack was apparently caused by shock on hearing of the death of a sister, and the second by fright at seeing a boy with facial palsy. The Argyll Robertson phenomenon was present, but there was no loss of knee-jerk. He said that Thomsen of Berlin had put on record a case which followed some shock to the nervous system in an epileptic patient; the field of vision was contracted, and this was said to be proportional to the degree of paralysis of the third nerve.—Dr. BREVOR had seen a similar instance in which exposure to cold winds were assigned as the cause.

Mr. W. H. JESSOP showed a child, aged eight, who had suffered a blow on the eyeball from a fall on a bed post, which was followed by Compound Rupture of the Eyeball in February, 1884. The chief interest of the case was the rapid and complete recovery with useful vision. The rupture in the sclerotic was three or four lines in length, but that in the conjunctiva was large and needed three sutures.

Mr. W. H. JESSOP also showed a case of Posterior Coloboma of the Choroid in both Eyes on the temporal side of the disc. The lens on both sides contained striæ.

Mr. M. MCHARDY showed a woman aged fifty-four who presented a small, globular, dark, red Tumour in the Ciliary Region in the outer segment; a larger and similar growth had been removed in July, 1884. Also a girl, aged sixteen, in whom there was a great Development of Fat in the Upper Eyelids causing much deformity. He had excised an elliptical piece of the upper lid and a large mass of adipose tissue, this afforded some relief.—The PRESIDENT asked whether the first case was regarded as one of melanosis.—Mr. NETTLESHIP inquired how deep the incision went in the removal of the portion of skin; was the layer of muscular fibres cut away? He suggested that the fat might have been of orbital origin. He had seen cases in young women and one in a boy; in one case he had removed a fold of skin twice, but no fat escaped.—Mr. MCHARDY replied that he took care in removing the skin not to cut deeply; he used a pair of "sickle" scissors and removed the skin much in the same way as would be done in the operation of removal of skin for transplantation.

Mr. JONATHAN HUTCHINSON read a paper on the Pathology of Reflex Ophthalmitis. Seven years ago, in some lectures delivered at the Royal College of Surgeons, he treated of the influence of the nervous system in the production of disease. In these lectures he maintained the view that the nerves did not initiate disease by any exercise of their functional power. He maintained that the inflammation actually spread along the nerve filaments. This notion got rid of any suggestion of trophic power in nerves. He now argued that reflex ophthalmitis had nothing to do with the nervous system, for he suspected the circulatory fluids rather than the nerves were the means by which the secondary lesions were originated. The mode of spread or the multiplication of inflammations, malignant diseases, and the like, he explained on the theory of the absorption into the circulation of certain elements derived from the original seat of disease. These elements only produced lesions in those tissues which were practically similar to the tissues in which the original lesion existed. It was another case of selective affinity. So that inflammation was set up in certain parts to the possible exclusion of other parts. In multiple periostitis, for example, the primary lesion was followed by other lesions exactly similar. The lesions never began simultaneously; there was no structural continuity between one periostitis and another, neither by the lymphatics or the nerves. He believed that certain elements were shed into the blood-current, and induced similar inflammations in similar tissues; if a long bone were first affected it was a long bone that suffered secondarily. He would apply similar reasoning to the case of the eye. The elements were first given off from the ocular inflammation and circulated in the blood, and then picked out precisely similar tissues in the other eye as the seat of their selective inflammatory action. It was an example of emigration in which the emigrant, cast off from home, settled down and colonised in parts where the conditions were similar to those which he had left. He considered that such a theory would explain the very exact symmetry of reflex ophthalmitis and other related conditions. The theory held good, not only for traumatic diseases, but for other forms of acute inflammation, such as pneumonia and the like. A view closely analogous, though not actually identical, with this had been propounded by R. Berlin in Volkmann's *Archiv.* for 1880, though Mr. Hutchinson became acquainted with Berlin's views after his own theory had been formed, and as the result of Mr. Nettleship's literary researches specially made with a view to find out whether such a view as Mr. Hutchinson's had been previously formulated. Berlin regarded the infecting elements as parasitic, but Mr. Hutchinson asserted nothing as to the nature of the infecting element. Berlin thought that the smallness of the capillaries in the eye and the influence of light were some of the similar conditions which led to the development of the secondary ophthalmitis in a given case, but Mr. Hutchinson thought that the similarity of the tissues should be regarded as the reason why the secondary inflammation should develop in the opposite eye. Dr. Fitzgerald occupied the chair during the reading of this paper, the discussion of which was adjourned to the next meeting.

OBSTETRICAL SOCIETY OF LONDON.

A MEETING of this Society was held on Wednesday, May 6th, Dr. J. B. Potter, President, in the chair.

The following specimens were shown:—(1) Fœtus, showing numerous Deformities of the Limbs; (2) Living child, showing Absence of Lower Two-thirds of Left Forearm and Hand; (3) Two cases of Imperforate Rectum in New-born Children (Dr. Horrocks); (4) Double Pyosalpinx from a woman who died from perforation of the stomach by an ulcer—the pyosalpinx had caused no special symptoms (Mr. Malins).

Dr. MATTHEWS DUNCAN read a paper on the Ulceration of Lupus of the Female Generative Organs, including Perforations, Pits, and Excavations. Ulceration is not an essential part of lupus. Some ulcerations are to be regarded rather as excoriations than as lupus ulcers; generally ulceration is accompanied by hypertrophy. The hypertrophied parts are not specially liable to ulceration. The ulceration may affect the hip or thigh, or any part of the genital organs, external or internal, also the bladder and rectum. The ulceration is generally not sensitive. There may be one or many ulcers. Lupus minimus is characterised by small ulcerations. The skin, mucous membranes, and subcutaneous cellular tissue are the parts chiefly affected; but any structure (except bone) may be destroyed. Sometimes the skin is chiefly affected; sometimes the subcutaneous cellular tissue. The ulceration sometimes produces pit-like cavities; sometimes producing great excavations; sometimes perforating, producing fenestræ or fistulæ; the peritoneum may be perforated. The ulceration is not accompanied by sloughing. The ulcers may heal in whole or in part. Ulcers, the result of

wounds of the hypertrophied parts, heal favourably. A specimen from the London Hospital (lent by Dr. Herman) was shown of Dilated Uterine Cavity with Perforating Ulceration.—Dr. HORROCKS mentioned a case under his care in Guy's Hospital, which he had observed for nearly two years. The patient was a single woman, never pregnant. Her complaint was pain in the pudendum and scalding on micturition. Small ulcers occupied the base of the hymen and fossa navicularis. There was no enlargement of the glands, and no history of sore-throat, but, on the suspicion of syphilis, mercury was given internally, and lotio nigra applied externally. No improvement resulting, caustics of various kinds were used, but pain persisted and no improvement followed. The hymen was apparently entirely eaten away, and along the line of its attachment were small red nodules, with a few tiny ulcers. The nodules were very different from caruncule myrtiformes; there were no lineæ gravidarum, and the cervix was nulliparous. The tubercles were then removed by scraping with a sharp curette and by cutting away with the scissors. The bleeding was so free that one or two vessels had to be tied. Dr. Horrocks asked Dr. Duncan what was his experience of scraping, and what was the best mode of treatment.—Dr. GANDY asked whether there was any fetid odour or other characteristic discharge; whether he could explain the profuse hæmorrhage with so little physical evidence of disease. He related a case in a patient aged thirty-five, in fairly good health, who was suddenly seized with very profuse bleeding which was arrested by subcutaneous ligature. No cause for the bleeding could be discovered, and it now occurred to him that the case might be one of lupus. There was always pain on coitus, but there had not, so far as he knew, been any return of the bleeding.—Dr. CHAMPNEYS asked Dr. Duncan (1) on what grounds these very different affections were included under the same name; (2) why they were called lupus when the microscopists pronounced the appearances to be unlike those of lupus; (3) what these diseases were called before they received the name of lupus.—Dr. MATTHEWS DUNCAN replied that he used the term lupus because others did so. West in his "Diseases of Women" (one of the earliest English notices) used this term. Esthiomene was an awkward word. Lupus expressed the great eroding character of the disease; it included ulcerations, inflammations, hypertrophies, variously combined, and which were not cancerous, not epitheliomatous, not syphilitic. It might turn out that several diseases were included in this comprehensive term. At present they were combined for description on account of their apparent similarity. They were far from being as uncommon as was supposed.

Mr. WILLIAM DAY (Norwich) read a case of Uterine Fibroid complicating Labour and treated by Enucleation. The tumour itself presented, and above the tumour a breech. The size of the tumour and its immobility precluded the possibility of delivery while it was *in situ*. After separating its connexions to a great extent, and thereby attaining greater mobility of the tumour, delivery was effected by the feet, the remaining attachments were severed and the tumour removed. It weighed three pounds and a quarter, was a soft fibroid, and would nearly have filled an ordinary tall hat. A successful case of enucleation of a large fibroid immediately after parturition induced Mr. Day to adopt this treatment. The patient lived for twenty-eight hours after delivery. The child still survives.—Dr. BRAXTON HICKS reminded the Society of a case which he had read before it some years ago, in which he divided the capsule by a bistoury vertically, and enucleated the tumour from its capsule with complete ease and success. This he thought best in the case of sessile or embedded fibroids. He called attention to the work of Dr. Chahbazian on the fibrous tumours of the neck of the womb in pregnancy and labour, to a paper by Dr. Mundé of New York, and to a case of Dr. Fry, in THE LANCET for 1884. He thought that, where delivery was urgent, the general opinion was in favour of enucleating the sessile forms from their capsule, which, in all the cases reported, was not a difficult operation.

BRITISH MEDICAL TEMPERANCE ASSOCIATION.—The annual meeting of the Irish Branch of this Association will be held in the Royal College of Surgeons, Dublin, on Tuesday, June 2nd. The chair will be taken at noon by the President, Deputy Surgeon-General F. L. G. Gunn. The meeting will be open to all members of the medical profession.

THE GENERAL COUNCIL OF MEDICAL EDUCATION & REGISTRATION.

THURSDAY, MAY 14TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

THE adjourned debate on Dr. Humphry's motion was resumed.

Dr. HUMPHRY asked permission to substitute for his motion the following: "That the examinations in general education conducted by universities be accepted as heretofore, but that if in any of these examinations the subject of elementary mechanics is not included, a knowledge of that subject should be required at a separate preliminary examination."

Dr. STRUTHERS said if the motion were so altered, he should be willing, if permitted, to withdraw his amendment.

The permission of the Council for the proposed substitution and withdrawal having been given,

Mr. MACNAMARA said he regretted that the Council had laid down such minute regulations in regard to general education, and had endeavoured to press them upon the universities. Dr. Haughton and the provost of Trinity College, Dublin, knew more on the subject of elementary mechanics and the best mode of teaching it than all the Council put together; and it was absurd to endeavour to impose upon the University another method of instruction or examination. They would, if the Council persisted, pursue the even tenour of their way, and the Council could not refuse to register the qualification obtained. He hoped the Council would not put itself in antagonism with the great universities. It was absurd to try to teach Oxford the best mode of teaching and examining in English. All details of the kind should be left to the great teaching bodies themselves.

Dr. PETTIGREW supported the motion.

Mr. MARSHALL said he retained his opinion as to the importance of English as a subject of education; but if the universities thought that they could secure a proper examination in the subject in a collateral way he would not recommend the Council to interfere with them. They had, he thought, complete liberty to examine in English as they liked. He did not approve of the method adopted by the University of Oxford, but he would not interfere with their freedom of action. He suggested that the first part of the motion be omitted—viz., "That the examinations in general education conducted by universities be accepted as heretofore," believing that it was quite unnecessary.

Dr. STORRAR said that the universities had a right to adopt their own methods of teaching and examining in general education; and that the Council ought not to endeavour to draw the bow too tightly, or seek to use a mandatory power, but rather be content with exercising moral sunsion. As to the teaching of English, it was difficult to get the older universities to take up English as a separate study; but at the University of London the examination in English was regarded as one of the most difficult of any, and the subject was one of the best as an instrument of education.

After some remarks from Dr. PETTIGREW, Dr. STRUTHERS, and Dr. BANKS,

Dr. HAUGHTON said he objected to Dr. Humphry's motion. The existing state of things brought about by the action of the Council last year had left the Universities of Oxford, Cambridge, and Dublin frying in their own juice: Dr. Humphry's motion, however, took Oxford and Cambridge out of the frying-pan, and left Dublin in it; he therefore strongly opposed it.

Dr. HUMPHRY having replied,

Dr. HAUGHTON moved as an amendment that the word "preliminary" be omitted from the resolution.

Dr. BANKS seconded the amendment.

Mr. SIMON contended that if the word "preliminary" were omitted the motion would be mere waste paper. If there were anything special in the case of the examination at Trinity College it might be met by a proviso.

Dr. HAUGHTON said if "elementary mechanics" was not to be regarded as including statistics, dynamics, and hydrostatics, he would undertake that there should be an elemen-

tary examination of students before registration at the Dublin University; but he could not undertake that the examination should cover the whole ground of fluids and solids. If his offer were accepted, he could vote for the motion, not otherwise.

Mr. SIMON said that the regulations of the Council would not permit of a definition of elementary mechanics which did not include fluids as well as solids.

Dr. HAUGHTON'S amendment was then put and negatived, and the original motion was carried by fourteen votes against four.

Dr. HUMPHRY said he had received a reply from the Cambridge University stating that Ebenezer Bryceson (as to whom he had been requested to inquire whether he had taken the degree of M.B.) had only taken the degrees of B.A. and M.A.

Dr. QUAIN moved the reception of the following report of the Pharmacopœia Committee:—

"The Pharmacopœia Committee have to report to the Council that the duty assigned to them has been so far completed as to enable them to lay on the table a revised copy of the New Pharmacopœia. The Committee recommend that, with a view to the publication of the work now completed, the course adopted by the Council, when the Pharmacopœia of 1867 was published, be now followed. On this subject the Council passed the following resolution on May 26th, 1866: 'That as soon as the proof of the new edition of the Pharmacopœia is ready a copy of it be sent to each member of the Council, with instructions that he will, within one month, return it to the secretary of the Pharmacopœia Committee, with such observations as he shall see fit to make thereon, to be submitted to the Pharmacopœia Committee; and that the Pharmacopœia Committee shall, after due consideration of such observations, hand over the proof, when finally approved, to the Executive Committee for publication.' Should the Council approve of the recommendation of the Committee, they suggest that the Council now adopt the resolution passed on May 26th, 1866, substituting the word 'chairman' in line 4 for 'secretary,' and adding 'sub' before 'committee' in line 6 of the above-quoted resolution. A copy of the completed work will be forwarded within a very few days to the members of the Council for their approval. The Committee cannot conclude their report on the completion of the Pharmacopœia without offering their testimony to the great care, the scientific skill, and the assiduity with which the editors of the work—Professors Redwood, Bentley, and Attfield, and others—have performed their duties."

Dr. QUAIN said that a copy of the Pharmacopœia would be sent to each member of the Council for suggestions before the work was finally issued. It would be a little larger than the previous edition, and would contain about a hundred more pages, but he hoped that the price would not be increased, as no charge would be made beyond the mere expense of production. No effort had been spared to make the work as perfect as possible. Its issue to the public might, he thought, be left with the Executive and the Pharmacopœia Committees, but if any grave question should arise steps could be taken if necessary to consult the Council.

Dr. STORRAR seconded the motion.

Mr. MACNAMARA said he had devoted a great deal of time to materia medica, and could appreciate the labours of the Pharmacopœia Committee. He was well aware of the great zeal and ability, and the great amount of time, that Dr. Quain had brought to bear in supervising the Pharmacopœia, and he begged to move: "That the warm thanks of the President and members of the Medical Council are eminently due, and are hereby tendered to Dr. Quain, chairman of the Pharmacopœia Committee, for his invaluable services in supervising the forthcoming edition of the British Pharmacopœia."

Dr. BANKS seconded the motion, which was carried by acclamation.

Dr. QUAIN said he was completely taken by surprise at the compliment paid him by the Council. Such a recognition was an abundant reward for any labours that he had given in connexion with the Pharmacopœia. He had only done his duty, and was only too pleased if the work contributed in any way to the credit of the Council and the advancement of the profession.

The Offices Committee presented a report in reference to their inquiries respecting a new site for a hall of meeting for the Council. Dr. Lyons, the chairman, had visited and inquired into the detail of lettings of two sites on the Thames Embankment. The first is that which immediately adjoins the Temple Gardens, and lies between them and Sion College. The cost is four shillings per foot square. The second site is on the Savoy Estate of the Duchy of Lancaster; and any portion of this site suitable for the purposes of the Council could be had at about two shillings per foot square rent per annum. It was assumed that a space of ground seventy-five feet by fifty feet would give ample accommodation in a well-planned two-storey building for a dignified and suitable council-chamber and the necessary offices. The letting of the present premises would in all probability balance the new rent of £375 incurred for the site. The Committee had considered Dr. Lyons' report, and were of opinion that one of the sites on the Savoy Estate of the Duchy of Lancaster would alone be adapted to the purpose, provided the Council were satisfied as to the necessity of removal and the convenience of the proposed site, and were prepared to incur the increased expenditure involved in the change.

Dr. LYONS, in moving the reception of the report, said that in the opinion of an architect whom he had consulted for his own guidance, the difficulties in the way of properly adapting the present building to the purposes of the Council were almost insuperable. After a careful inquiry over an extensive area in London, the only available sites appeared to be the two mentioned in the report.

Dr. QUAIN (a member of the committee) urged that the proposed site in the Savoy was objectionable on the grounds of inconvenience and expense. The rent of the present premises was £300 a year, but they were worth £600; while that of the premises in the Savoy would be £700 or £800. He thought that the existing premises could easily be so modified as to suit the purposes of the Council.

Dr. STORRAR (also a member of the committee) expressed his concurrence in the views of Dr. Quain, and objected to the large expenditure that would be required to erect a new building on the proposed site.

Dr. A. SMITH said the first question to be decided was whether the Council was willing to invest its large capital in a new and costly building.

Mr. SIMON thought that the Council should resign itself for the present to existing circumstances, and not go into the indefinite experiment of either largely altering the present premises or going to another site.

Mr. TEALE also recommended the Council to remain in its present premises. He thought that another room less objectionable than the present could be erected in another part of the building.

Dr. WATSON moved as an amendment: "That the report of the Offices Committee be referred to the Executive Committee with instructions that they continue the inquiry in the direction of improving the present premises, with powers to take professional advice, and to report to the next meeting of the Council."

Mr. TEALE seconded the amendment, which was agreed to. On its being proposed as a substantive motion,

Dr. STORRAR moved as an amendment: "That the report of the committee be referred to the Executive Committee with power to take such steps, under professional advice, as they may judge desirable to further improve the ventilation of the hall in which the Council meets, or, if necessary, to report on the improvement of the building at the next meeting."

Dr. QUAIN seconded the amendment, which was agreed to; and it was also passed as a substantive motion.

Sir H. PITMAN proposed: "That a committee be appointed to consider and report in what way, if any, the accumulated funds of the General Medical Council can be applied in promoting scientific research for the public good." The first consideration, he said, was whether the Council had power to appropriate any of its funds to scientific research. He thought it would be found that the Council had such power. Certainly it had funds at its disposal. From the account published last year it would be seen that during the last three years the average surplus income over expenditure had been £2500 a year, and during the last seven years the average had been £1300. The Council had now standing to its credit the sum of £38,000. That included sums in the hands of the Branch Councils; but, of course, the whole of those funds were under the direction of the General Council. The Branch Councils had no special interest apart from the General Council. They were permitted to have the control of a certain portion of the registration, but they were accountable to the General Council, with whom rested the

entire supervision of the funds, as would be seen by a reference to the Medical Act. The Act declared that "all moneys received by any treasurers arising from fees to be paid on registration, from the sale of Registers, from penalties or otherwise, shall be applied for the expenses of registration, and of the execution of this Act." The only question was whether his proposal would come strictly within the meaning of the words, "the execution of this Act." That it was so, he thought, would be clear from Clause 54:—"The General Council shall cause to be published under their direction a book containing a list of medicines and compounds, and the manner of preparing them, together with the true weights and measures by which they are to be prepared and mixed, and containing such other matter and things relating thereto as the General Council shall think fit, to be called the British Pharmacopœia; and the General Council shall cause to be altered, amended, and republished such Pharmacopœia as often as they shall deem necessary." His contention was that some portion of the Council's funds might be applied under that clause to investigations in relation to the British Pharmacopœia. To show the intention of the Legislature in such matters, he might refer to the Dentists Act, Clause 32, which said that all moneys received should be applied in accordance with such regulations as might be made by the Council in defraying the expenses of registration and other expenses of the execution of the Act, "and, subject thereto, towards the support of museums, libraries, or lectureships, or for public purposes connected with the profession of dentistry and dental surgery, or towards the promotion of learning and education in connexion with dentistry. In recent Medical Bills introduced into Parliament there had been a provision that any surplus funds might be applied to the promotion of such purposes as were contemplated for the profession of dentistry. Science had of late years made great advances, especially in connexion with sanitary questions, and the health of the public had greatly benefited by the improvements that had been carried out. He was anxious that some of the accumulated money of the Council should be expended in what, perhaps, might be called the physiology of therapeutics, with a view to making improvement in that direction, and keeping pace as far as possible with the progress of science in other directions connected with the profession. Why should the Council go on accumulating thousands of pounds every year? Notwithstanding the large expenditure on visitations, the Council had at least enough money at its disposal to justify it in applying some portion of its funds in the promotion of scientific research for the public good. The committee should, he thought, be a large one, so as to comprise every section of the profession.

Dr. DUNCAN, in seconding the motion, said it would be for the committee to inquire, amongst other things, whether the proposed expenditure was justified. For his own part, he thought it a very great grievance that the Council should possess such a large sum of money. If it could not get rid of it in the way proposed, it should do so in some other way. The responsibility of having so large an accumulated fund, making no use of it, and having no prospect of making use of it, was an unmixed evil.

On the motion of Mr. SIMON, the debate was adjourned at the rising of the Council.

FRIDAY, MAY 15TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The debate on Sir H. Pitman's motion for a committee on scientific research was resumed.

Mr. SIMON regarded it as absolutely unquestionable that the Council had nothing to do with the object named by Sir H. Pitman, and that any expenditure in the direction he had proposed would be a breach of trust. The Council was authorised to publish a Pharmacopœia; but that could not include the power to publish accounts of scientific researches such as those named by Sir H. Pitman. If the Council was receiving more money than it wanted, it could reduce the registration fee from five guineas to three, which would be quite within its power to do. He had had a good deal to do with grants for scientific research, and could assure the Council that the difficulties connected with the subject were very great.

Mr. MARSHALL said if it could be shown that all the expenses of the Council could be met by a registration fee of three guineas, the fee should be reduced to that sum. At present that could not be done, but in a few years he thought it could be easily carried out.

Dr. STRUTHERS thought that the powers of the Council were very limited, and did not extend to expenditure for scientific research. The funds, however, could legally and usefully be applied to an extended system of visitation of examinations.

Dr. WATSON hoped that the discussion would set at rest for ever the question of applying the funds of the Council to scientific research.

Dr. HUMPHRY hoped that in future the visitation of examinations would be carried out more energetically than it had been. That was certainly an object to which the funds of the Council could be properly applied.

Dr. LYONS reminded the Council that it might have duties to perform which would require a considerable expenditure. He referred especially to the visitation of examinations, which ought to be widely extended and embrace every branch of education. It would be a great misfortune if such a work were hampered by pecuniary considerations. There ought to be a thorough annual inspection and report to the Council, and it was impossible to say what the consequent expenditure might be. For that reason he deprecated legislation in the direction proposed by Sir H. Pitman.

After some remarks from Dr. SMITH,

Sir H. PITMAN, in reply, said it was singular that the members who opposed his motion had not before discovered that the registration fee might be reduced. His proposal was not that money should be at once expended for scientific research, but only that a committee should be appointed to consider whether that course could be adopted. As to visitations, if any great improvement had taken place (as had been alleged) the necessity for them should be less rather than greater. The cost of a visitation was enormous; but the expense of researches such as he had mentioned would be comparatively small, and it would have, he contended, a distinct relation to the Pharmacopœia, and would therefore be strictly legal. It was a dereliction of duty on the part of the Council to be receiving large sums of money which it could not usefully employ.

Dr. LYONS moved as an amendment: "That a committee be appointed to consider and report in what way the accumulated funds of the General Medical Council can be best applied for the public good in conformity with the duties imposed upon the Council under the Medical Act."

Dr. PETTIGREW seconded the amendment.

The PRESIDENT said he could not understand on what principle they were to conclude that if they had the power and the means they were not at liberty to inquire into the mode of action of those substances of which they were in the habit of prescribing doses. He also called attention to several previous meetings of the Council when similar proposals had been considered.

Dr. STORRAR thought that if the proposed committee were appointed, it ought to have the power of consulting counsel on the legal aspect of the question. He sympathised with the object of the motion, but could not consent to an illegal expenditure of money.

The amendment was then put, and negatived. The original motion was also negatived by a considerable majority.

The following report was presented from the Finance Committee:—

The Finance Committee report that the income of the General and Branch Councils for the year 1884 (ending Dec. 31st, 1884) has been £8424 2*s.* 3*d.*, an amount which exceeds by £478 14*s.* 9*d.* the income for the year 1883. The expenditure during the year 1884 has been £7084 6*s.* 7*d.*, which is £2633 0*s.* 1*d.* more than the expenditure of 1883. The Committee has, nevertheless, the satisfaction of reporting to the Council that, notwithstanding the large expenditure during the past year, the excess of income over expenditure for the year 1884 amounts to £1339 15*s.* 8*d.* The excess of income over expenditure for the year 1883 was £3494 1*s.* As regards expenditure, the largest item of increase has been that for fees to members of the General Council, in consequence of the two sessions of the Council held during the year 1884. This excess amounted to £1580 1*s.* 10*d.* The fees to members of the Executive Committee also show an increase of £173 11*s.* 8*d.* The preparation of the new edition of the British Pharmacopœia has involved an expenditure on account of £358 12*s.* 2*d.*, and in general printing there has been an increase of £39 12*s.* 7*d.* The only items of diminished expenditure for the year 1884 claiming notice, as compared with 1883, are a decrease of £18 14*s.* 5*d.* in house

expenses, and £13 14*s.* 6*d.* in the production of the Medical Register. While, therefore, the total increase of expenditure is £2320 7*s.* 1*d.*, the total decrease amounts to £92 2*s.* 4*d.*, showing an actual increase in expenditure of £2228 4*s.* 9*d.* The average yearly income during the last seven years exceeds the average yearly expenditure by £1617. In the receipts (£585 17*s.* 11*d.*) of the Dental Registration Fund for the year ending December 31st, 1884, there is a decrease of £82 6*s.* 5*d.* over those of last year, while the expenditure, £896 2*s.* 9*d.*, has been greater by the sum of £151 4*s.* 7*d.* The deficiency of income for the year is thus £310 4*s.* 10*d.*, as compared with a deficiency of £76 13*s.* 10*d.* in 1883. Pursuant to instructions given at the meeting of the English Branch Council in 1884, the treasurers have made an additional purchase of £2500 consols in the names of the trustees of the Branch Council, thus making a total invested under this trust of £33,000 consols. The total amount now invested by the three Branch Councils is £38,669 17*s.* With respect to the reference from the General Medical Council—namely, "To present a scheme which will render it necessary in future that the Branch Council for England should advance the money required to meet the current expenses of the General Medical Council,"—the Finance Committee recommend the following plan to be adopted in future:—1. That an estimate of the sum probably required for the current year's expenses of the General Medical Council having been made by the Executive Committee at their first meeting in each year, the proportionate rate to be paid by each Branch Council in order to provide such sum be made by that committee, and that the half of that sum be paid in January and July of each year. 2. That the sums paid by each Branch Council be placed to an account to be opened at the bank in the name of the General Medical Council. 3. That any balance remaining on this account at the close of each year, over and above what has been required for the expenses of the General Council for that year, be calculated in the estimate of the sum required for the following year; or should there be any deficiency, that the respective Branch Councils supply such deficiency computed on the percentage rate.

The report was received and adopted without discussion.

Mr. MARSHALL moved: "That it is desirable that the first principles of physics, chemistry, and biology should be regarded as branches of a preliminary scientific training and of an examination, to be taken before the commencement of purely professional study." He thought there could be no question as to the proposal he had submitted being within the powers of the Council under the Medical Act; indeed, he thought it absolutely necessary that the question should be taken up. A circular had been sent to a number of persons asking their opinion on the subject, and many answers had been received. A large majority were more or less favourable to the establishment of some sort of special preliminary scientific examination. Inquiries had been addressed to fifty-eight persons: nine had sent no reply; eight were decidedly adverse, chiefly on the grounds of additional expense of time, and of the inexpediency of encumbering the curriculum; eight were moderately adverse; thirty-four were more or less in favour of the proposal; twenty-three were absolutely in favour of some form of preliminary scientific education; three were in favour of such a preliminary examination as was expressed in the conjoint scheme of the Royal Colleges of Physicians and Surgeons; and seven were in favour of such an examination, but thought it could not be carried out at schools for general education. The evidence was strongly in favour of the proposal, and no apology therefore was needed for his introducing it. It would, if carried out, have the effect of relieving the professional curriculum. It might be objected that a heavier burden in time and money would be imposed upon the students, but he did not think that that was an objection that the Council had to consider. It was rather an objection to be made by the withdrawal of those who could not afford the necessary education. If the number of students had to fall off, it was better that they should do so early in their career than that they should go through a long period of medical education, and then be disappointed. It had been stated that the supply of medical men was inadequate to fill up the waste, but that was really not the case. Taking an average of nine years, the number of students annually registered had been 1842, and the number of practitioners registered in the same time was 1109, showing an antecedent waste of 733. That was a proof that a number of men entered into medical training who never passed into the Register. It might be asked, How was the waste supplied? The antecedent waste before registration was 733 a year. The working waste was 856, and deducting that number from 1109 (the number registered), there was a balance of 253, representing the number entered on the Register yearly in excess of the waste. The number of students registered in 1879 was 2009. It would take those students five years to get on the Register, so that they would appear in 1884. The number of practitioners then registered was 1388, so that the antecedent waste had been 621, and the balance, after deducting 615 who had died and retired, was 713. They therefore need not be alarmed as to the question of supply and demand. There were many poor-law medical officers breaking their hearts on a salary of £50 a year who might get £100 a year if the numbers in the profession were diminished. He doubted, however, whether the proposed plan would really increase the length of time during which a medical student would have to study. A sound preliminary training would enable the students to get through their professional curriculum more rapidly, and time would in that way be saved. Experience showed that those who had had that kind of training were more apt students in their subsequent career. He had been very much surprised, however, at an answer given by one gentleman who said that he had not found that those who had a preliminary scientific training were more apt in their professional studies. His (Mr. Marshall's) experience was just the reverse. But should the preliminary training be conducted at the schools? It would, he thought, be futile to expect from the schools a sufficient preliminary education in the fundamental sciences. The latest report from the examiners at the Cambridge local examinations gave them but little encouragement to expect a good scientific training in the general schools of the country. The work would probably be best done in the scientific division of the medical schools, and it should be done before the students were permitted to register. The subjects to be taught were the principles of mechanics, physics, chemistry, and biology. He meant by biology a general outline of the systems of plants and animals, especially the structure and functions of vegetable and animal tissues. His object was to raise the lower ranks of the profession; the higher ones would take care of themselves.

Mr. SIMON, in seconding the motion, said as the subjects of education increased the more incumbent it became to provide for methodical teaching, without which students would find the task before them an almost hopeless one. General scientific subjects should be dealt with before professional subjects; the latter would then be more quickly and easily acquired. That view was enforced in a report of the Committee on Professional Education in 1869, which he had himself drafted, and which was accepted by the Council without alteration. The time at present given to medical education, forty-five months, was generally admitted to be too short. It might be long enough for a student who had had a preliminary scientific training; but without such a training at least fifty months should be given. With such a regulation the schools would provide the necessary instruction, say, in May, so that the students might begin their medical course in October; but they would be at liberty to acquire their preliminary knowledge where and how they pleased.

Dr. PETTIGREW thought that chemistry was too important to be treated as a mere preliminary subject. "Biology" was a vague term; and the necessary amount of knowledge respecting it could hardly be obtained in the way proposed. He should not himself object to lengthening the period of medical education, but feared that it might interfere with the needful supply of practitioners. He thought that, at present, the subjects of the curriculum were too numerous, and that their number should be lessened in order that they might be more thoroughly learned.

Dr. BANKS said there were many men entering the profession who were quite unfit for it. There ought to be two different grades in the profession, and five years ought to be the minimum period of study.

Dr. HUMPHRY, in supporting the motion, said that there was a very general feeling expressed by the gentlemen who had answered the questions addressed to them, that a general scientific should precede a purely professional education. The great defect in education was in regard to the knowledge of principles, and if this defect could be supplied at an early period, the advantage would be

enormous when the professional studies were undertaken. There were doubtless great difficulties in the way, but the appointment of a committee might lead to their removal. An expression on the part of the Council that the course proposed was "desirable" would be a useful preliminary step in dealing with the subject.

Dr. STORRAR said that the principle of the motion was enunciated twenty years ago in a motion brought forward by himself. Something more should now be done, and he hoped that a distinct recommendation would be given to the examining bodies. The scientific instruction at most schools was quite inadequate, but there were notable exceptions. At Eton and Rugby, for example, science was well and practically taught. At Bedford there was a complete laboratory, and the scientific training was excellent. As a rule schoolmasters, knowing nothing of science themselves, did not care about its introduction, but if there was a demand for it, it would no doubt be well taught. With regard to biology, it was absurd to suppose that it could be taught from books alone, but there was no reason why it should not be taught practically in the schools. He hoped that no attempt would be made to exercise control over the qualifying bodies; the Council should be content with forwarding a recommendation on the subject.

Dr. HAUGHTON thought that at least a year's preliminary scientific training should be required from the students.

Dr. CHAMBERS said that the brains of boys at school were not sufficiently developed to receive chemical and biological instruction. The subjects were of a special character, and should be included in the later medical curriculum. He did not object to the addition, but it was made at the wrong end.

Mr. TEALE thought the Council was mixing up general and professional education. The great object was that good training should be given at school, without reference to the particular subjects selected; and the more they tried to increase the subjects of early education the more likely they were to deteriorate it. The subjects referred to in the motion belonged to professional training, and should be so regarded. Dr. Michael Foster, in writing on the subject, had said: "I would not recommend a special preliminary scientific examination. In order to be adequate, it must be by special examiners, and the almost necessary consequence will be that it will become sooner or later too exacting." There was unfortunately a tendency to add to the curriculum before the question of time had been decided. Every examination added would, he thought, tend to deteriorate true medical study. He often heard complaints that men who had gone through their curriculum were not so well qualified to enter upon the profession as those who were turned out many years ago. The schools were being turned too much into cramming machinery, and any addition to the examinations would only increase the evil.

Dr. SCOTT ORR said that when examined by the Scotch University Commissioners he gave evidence almost identical with the views expressed by Mr. Marshall. It was not, of course, to be expected that the boys would get all the required information at the schools. Boys going straight from school to medical study often lost their first year; they did not know how to study, and had to be taught the preliminary lesson. It was scandalous that there should be so many rejections at the first examinations. By such an examination as Mr. Marshall proposed the unqualified students would be filtered out early, and the qualified ones would be better able to pursue their studies after their preliminary training.

Dr. STRUTHERS said that examinations were not to be trusted without a regular education at a college or university. He suggested that the consideration of the subject should be deferred until the question of the curriculum had been settled.

SATURDAY, MAY 16TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The adjourned debate on Mr. Marshall's motion was resumed.

Mr. MACNAMARA said that every member of the Council must sympathise with the earnest desire shown by Mr. Marshall that the important subjects mentioned in the motion should be thoroughly and carefully studied, but at the same time there might very well be a strong difference of opinion as to the mode in which that study should be carried on. The proposal seemed to be that those subjects should be taken previous to the commencement of professional study, and when once examined upon they were to be put on one side. No one who knew anything about the profession would under-estimate a knowledge of chemistry, and he could not approve of the suggestion that the examination in it should be passed before the student was registered; he would, however, be prepared to go the whole length with Mr. Marshall if it was to be subsequent to registration. Mr. Macnamara then gave a detailed account of the manner in which the several subjects were taught in the Royal College of Surgeons in Ireland, and expressed his regret that the Council had not taken up the recommendations first, dividing the whole course of study into sessions, and allocating to each its various subjects.

Dr. WATSON was glad that Mr. Marshall had brought forward his motion before the discussion commenced on the arrangements for study and examination in future. The present curriculum was certainly over-weighted. Some students of more than average attainment might succeed in it within the forty-five months, but in most instances those who did so had had a preliminary education of a very different kind from that which was to be obtained at an ordinary school. Generally, their being able to pass within the allotted time was due to the fact that they had virtually entered upon what might be called the intermediate professional studies before they passed into the rank of medical students. Mr. Marshall's proposal to put certain things into the preliminary examination appeared a very valuable one, as it would tend in some way to relieve the curriculum. Chemistry was not slighted by being put into the preliminary, but the chemistry which Mr. Marshall alluded to was what must, under any circumstances, be acquired before further steps could be taken in that science. But the question arose, When and how could physics and biology be studied? In his opinion there was only one way in which that could be done—namely, in those schools where such subjects were really taught. If there was one thing that was bad for a medical student, it was that, even if he did not pass his examination, he should carry on his study in further subjects. It was of the very highest moment that anatomical studies should not be conducted at the same time with clinical studies, for if they were it would be difficult to avoid the risk of carrying septic germs into the anatomical ward. Chemistry and physics might easily be dealt with in the winter session, and zoology and botany in the summer session. From every point of view it appeared to him desirable that the resolution should be passed.

Dr. SCOTT ORR considered that more than one year's study would be necessary to enable the student to pass the examination proposed. If the curriculum was extended at all, it should be in the direction of professional study, and not of preliminary study. Mr. Marshall's proposal might be all very well for university students, but extra-mural students would find it extremely difficult to comply with this regulation. He could not see the propriety of relegating chemistry entirely to the preliminary course. It should be, as it had hitherto been, a part of the first professional examination.

Mr. MACNAMARA proposed as an amendment: "That it is desirable that the first principles of mechanics, physics, chemistry, anatomy, and biology should be regarded as branches of a preliminary scientific training, and of an examination to be taken at the end of the first year of professional study."

The motion was seconded by Dr. PETTIGREW.

Mr. MARSHALL said there appeared to be a unanimous opinion that the schools could not be relied upon for a *bonâ fide* scientific preliminary examination. The object of school education was to educate the mind in the instruments to be used for the acquisition of knowledge. There was no objection to boys at school being allowed to indulge themselves in botany, zoology, and the natural sciences generally—indeed, they ought to be encouraged to do so; but he did not think that any examination which might issue out of a study of this kind should be seriously taken into account. No examination in such subjects at this early period could be considered adequate as an introduction to professional education. It was necessary that there should be interpolated a truly scientific training which should be preliminary to the study of the human body as it existed in life and disease, which was the ultimate object of medical science. The intermediate training to which he referred should include mechanics, physics, chemistry, and general biology. It had been said that chemistry was so important a subject that it could never be taught properly if it were

separated; but he could not understand why it should not be taught even more effectually by itself than when the student was attending to his strictly medical studies. With regard to biology (a word to which he did not, like some members, object), the object should be to educate the student in the elementary principles connected with the structure and action of living things. The question was whether the course of scientific instruction should be introduced between the general education an the professional one. The main point was that it should be given before the student was allowed to be put on the Register. As to prolonging the curriculum, that was a question still hanging over them, and it would have to be dealt with hereafter. His own belief was that if the proposed plan were adopted, there would be as many students passing in the fourth year as there were now. The curriculum would have to be prolonged directly or indirectly. To prolong it directly was, he thought, objectionable. It would make some students lazy, and would not increase the chances of any.

Mr. SIMON said that all were agreed that before the commencement of professional study the reasonable competence of the students in the scientific subjects that had been mentioned ought to be ascertained. The question whether the term "professional," "preliminary," or "intermediate" should be applied to them was a trivial one in comparison with the essential question itself, which was that before anthropological specialities began the student should have some knowledge of mechanics, chemistry, physics, and biology. No doubt they would have to look forward to more time being required. How could it be otherwise? When some of them were young men the amount of scientific training required for men entering the medical profession was not more than was now required for the veterinary profession. He hoped that the Council would affirm the principle that before entering on medical studies the student should understand something of the attributes of the inorganic and organic world.

Dr. QUAIN thought that the treatment of disease had deteriorated. In consequence of the attempt to cram science down men's throats they had very little idea of good practice. It was absurd to suppose that the scientific knowledge now demanded could be acquired at school. The question was whether a five years' course should be required; and if so, how the time could be best spent.

The PRESIDENT said there could be no doubt that a scientific preliminary education, whatever it might be called, had become a necessity as an introduction to anthropological studies; and it was impossible that so much work could be put into the time at present prescribed.

Dr. LYONS was afraid that the medical student of the future would be in the position of Ginx's baby. He did not question the necessity of some such legislation as was indicated by Mr. Marshall's motion, but he was not sure that it would not be better to defer the consideration of the question until after they had taken up the question of the Council's recommendations. He thought that not less than two years' serious study would be required for a respectable knowledge of the first principles of physics, chemistry, and biology. Anything short of that would be practically useless. A two years' course would bring the student to the age of eighteen; and then nothing less than a four years' course would suffice for a thorough education in medicine, surgery, midwifery, pathology, anatomy, ophthalmology, and the other branches of which a full knowledge was required from the student before he was admitted to practise. That would bring him to twenty-two—the earliest age that should be allowed for admission. The two years' scientific preliminary training could be better given in one of the recognised universities, and it would, he thought (without committing himself definitely on the subject), be better to recommend the Legislature to establish a preliminary course in a university before admission to professional study. He hoped that the consideration of Mr. Marshall's motion would be deferred.

Dr. HAUGHTON thought that the Council was wandering from the real question, and discussing a great variety of details. The present regulations of the Council, to which the licensing bodies had assented, limited the period of medical study to four years, which included chemistry, physics, and biology; and they ought not to take the corporations and universities by surprise by passing Mr. Marshall's resolution without letting them know that it meant five years instead of four. If five years was the right time, let the Council say so. He for one would vote for it if the Council thought it right.

Dr. STRUTHERS said that a five years' course would be required if the preliminary scientific knowledge was not to be a mere sham. For himself he would far rather have medical students come to him well trained in classics and mathematics and knowing nothing about biology than have them come with a mere smattering of science. He should vote for the amendment.

The amendment was then put and rejected, 7 members voting for it and 10 against.

On the motion being put,

Dr. STRUTHERS moved as an amendment: "That the Council postpone its decision on the motion until it comes to decide on the questions of professional education and examination."

Dr. PETTIGREW seconded the amendment, which was put and rejected.

The original motion was then put, and on a show of hands there were nine in favour and nine against; but on the names being taken there appeared to be 9 in favour and 10 against, and it was accordingly declared to be lost. Three members did not vote.

Mr. SIMON moved: "That the statements which have been made to the Council, that the Council's accumulated funds amount to £38,000, and that the Council's annual income exceeds its annual expenditure by an average amount of £1600, be referred to the Finance Committee and to the Executive Committee; and that these Committees be instructed jointly to inquire, and jointly to report their opinion to the next meeting of the Council, whether the registration fee of £5 now charged to each person who enters the medical profession is more than enough to provide for the full efficiency of the Council in all its branches of duty, and whether the Council might properly proceed to make a reduction of the fee."

Mr. MARSHALL seconded the motion.

Dr. A. SMITH said that as three out of the four members of the Finance Committee were on the Executive Committee, he saw no reason why the matter should be referred to both committees.

Mr. SIMON said that Dr. Scott Orr, a valuable member of the Finance Committee, was not on the Executive Committee, and it was desirable to secure his services.

Dr. HAUGHTON had a strong objection to refer the matter to a committee; it was a question which the Council ought to decide itself. The benefit proposed to be given to the individual practitioner was infinitesimal, forty shillings once in his lifetime. It would be much better for the Council to keep its surplus so that it might be able to spend it on some useful objects.

Dr. STRUTHERS said that the money could be usefully spent on a more continuous visitation of examinations, and he proposed to move at a future sitting that the subject should be referred to the Branch Council to consider and report on it to the Council at its next meeting.

Dr. CHAMBERS considered that the money in the hands of the Council should be spent in such a way as to benefit those who had contributed it, and that to apply it to the reduction of future fees would be unjust to the old practitioners.

Dr. HAUGHTON moved as an amendment: "That the question of the reduction of fees on registration be now decided by the Council."

The motion having been seconded, was put and carried by 13 votes against 2.

Dr. HAUGHTON then moved that the registration fee remain *in statu quo*, and this, having been seconded by Dr. PETTIGREW, was also carried by a large majority.

Dr. CHAMBERS moved, "That the Council sanction the following decree passed by the Convocation of the University of Oxford, Feb. 24th, 1885:—'That no person shall be henceforward presented for the degree of Bachelor of Medicine who has not passed a qualifying examination, not only in medicine, but also in surgery and midwifery before the Examining Board for England, unless or until an examining board be appointed by the University for that purpose.' And that the Council also sanction the adoption by the Colleges of Physicians and Surgeons of England of the following resolution of the Committee of Management of the Examining Board for England of the said Colleges:—'That every member of an English university who shall have passed such an examination or examinations at his university as shall comprise the subjects of the first and second examinations of the Examining Board for Eng-

land, and who shall have completed not less than four years of medical study according to the regulations required by his university, be eligible for admission to the third or final examination of the Board, two years after his having passed all the other required examinations.'" He said that by the 19th Section of the Medical Act any of the Colleges or bodies might, with the sanction and under the direction of the General Council, unite in conducting the examination required for qualifications to be registered under the Act; and he now applied for the sanction of the Council to a temporary arrangement made by the University of Oxford with the Conjoint Board of the Colleges of Physicians and Surgeons of England. The degree of B.M. conferred by the University was not a degree authorising the recipient to practise, but only to teach and lecture. The licence to practise was given separately. When the Act of 1858 was passed, the M.B. degree was made a qualification, and was admitted on the Register by the authority of the Council; the Council, therefore, was responsible for it. The University, in order to carry out loyally the direction of the Council, had gradually increased its standard of examination. Then came the recommendation from the Council that all persons who received a qualification should be examined in surgery and midwifery. The University thought that if it went on increasing its standard in medicine according to the improvements in education, it must also increase it in midwifery and surgery; but it was felt that that would be oppressive to the candidate. The difficulty might, it was believed, be overcome by the arrangement mentioned in the resolution.

Sir H. PITMAN, interposing, said he thought that the Council had no authority to interfere in the matter, and that it was purely a question for the University of Oxford.

The PRESIDENT said that there was a legal question involved in the matter which had not yet been settled, and it was doubtful whether the Council had anything to do with it. Dr. Chambers, however, had acted quite rightly in bringing it before the Council, which he had done on his own responsibility.

The further consideration of the matter was adjourned.

MONDAY, MAY 18TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

On the adjourned debate on the motion for sanctioning the decree passed by the University of Oxford,

The PRESIDENT said his attention had been called to the fact that in the decree in question reference was made to the "Examining Board *for* England," there being no such body. It should be "the Examining Board *in* England."

Dr. CHAMBERS, in resuming his address, said he had brought the matter forward as the representative of the Convocation of the University. The University had endeavoured to carry out the recommendations of the Council in regard to examinations in midwifery and surgery, and it was of opinion that such examination for Bachelors in Medicine would be best carried out in London. He asked for the sanction of the Council to the arrangement, without which the University might find itself in an awkward position, not knowing whether its examinations had been legalised or not. His attention had been drawn to the misdescription mentioned by the President. His belief was that the error was in the original decree; and in order that the error might be rectified, he would ask permission to withdraw his motion, on the understanding that he might be permitted to bring it forward again and discuss it on its merits.

Permission having been given,

Dr. HUMPHRY gave notice that he should move that in order to prevent misunderstanding the representative of the University of Oxford be requested to make it known to the University that there is not, at the present time, any examining board for England.

The Council then went into Committee to consider the existing recommendations of the Council, and the proposed alterations, herein adopted by the Branch Councils for England, Scotland, and Ireland.

In Recommendation 19, "the age of twenty-one shall be the earliest age at which a candidate shall obtain a licence to practise, and the age shall in all instances be duly certified," no alteration was proposed by the English Branch Council.

Dr. HALDANE, on behalf of the Scotch Branch Council, moved the substitution of the word "should" for "shall," urging that the former word was more appropriate to "recommendations," which had not the force of actual laws.

Dr. HAUGHTON seconded the motion.

Mr. SIMON thought that a distinction should be drawn between opinions of the Council that were imperative (such as those relating to the earliest age for admission) and the opinions that were merely the subjects of recommendation. The former, he thought, should take the form of standing orders.

Dr. WATSON supported the motion, which was put and agreed to.

Dr. BANKS moved "That the age of twenty-two be the earliest age at which a candidate shall obtain a licence to practise." If, he said, the question of age were considered after the question of the curriculum had been disposed of, he thought there would be a general consensus of opinion in favour of his motion. He was not alone in the opinion he had formed; for the King and Queen's College of Physicians, Ireland, had recommended that no candidate should be admitted to practise before attaining the age of twenty-two; and Sir Wm. Gull had recommended twenty-three as the earliest age. He (Dr. Banks) had brought the subject forward on a previous occasion, and at Mr. Simon's suggestion it was postponed until the subject of medical education was under discussion. They had had abundant evidence that the period of forty-five months, or even four years, was too short for an efficient education; and the result was that a number of immature youths had been admitted into the profession. If eighteen were the minimum age for admission to the Register, that would answer the purpose equally well.

Dr. A. SMITH seconded the motion, which, on being put, was rejected by a large majority, there being only two votes in its favour.

Dr. WATSON moved the omission of the word "duly" before "certified," regarding the word as meaningless. He said that the affidavit of the candidate himself as to his own age was accepted as a sufficient certificate.

The motion was seconded by Dr. PETTIGREW and agreed to.

In Recommendation 20, "No licence shall be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student,"

Dr. HALDANE proposed to add the words, "and his commencement of study at a medical school." The object of the addition, he said, was to prevent candidates from being registered who had merely become pupils of a registered practitioner. The Scotch Branch Council was aware that in a number of cases students had availed themselves of that mode of commencing medical study, and in that way a year or more had in some cases been deducted from the period of education.

Dr. FERGUS seconded the motion.

Mr. MACNAMARA said it was felt by the Irish Branch Council that the work with a registered practitioner was a sham. They accordingly proposed that the recommendation should read, "No licence shall be obtained at an earlier period than at the close of the attendance on four winter and four summer sessions of medical study subsequent to the registration of the candidate as a medical student."

Mr. Macnamara's speech was interrupted by the announcement of the President that the hour had arrived when, according to arrangement, the Council had to consider the case of a medical practitioner summoned to answer the charge of having caused to be registered in the Medical Register a qualification which he did not possess. This case (that of Ebenezer Bryceson) was considered in private, and occupied nearly the remainder of the sitting, being then postponed for further consideration on Thursday. It wanted only a few minutes to the hour of adjournment when strangers were readmitted, and it was then considered too late for Mr. Macnamara to resume his speech. The remaining time was accordingly spent in the transaction of some formal (chiefly dental) business.

Sir H. PITMAN said it had been thought desirable to reconsider the standing orders with reference to penal measures, as to which there was at present no very clear mode of procedure. Such cases were becoming more frequent and more difficult to deal with, and it was desirable that the rules respecting them should be more exact. He moved: "That the Executive Committee, with the assistance of the legal advisers of the Council, be requested to revise

Sections 11, 12, and 14 of the standing orders having reference to penal measures, and to make at the next meeting of the Council such recommendations as they may think fit for amending the same."

Mr. SIMON seconded the motion, which was agreed to.

A communication was received from the Lord President of the Privy Council, enclosing a copy of a petition of Mr. E. Wooton, praying that his name might be entered in the Register as a dentist. The communication was ordered to be entered on the minutes.

Mr. MACNAMARA asked if the matter would be brought on for discussion.

Sir H. PITMAN said there was nothing to discuss. The petitioner, who had presumably been in practice before the passing of the Dentists Act, now asked to be registered, the time given by the Act having long since expired. That of course would be quite illegal.

A communication was received from the University of Pennsylvania (Department of Dentistry) asking for the recognition of its diplomas. After a short discussion as to the character of the course of study at the University (which Sir H. Pitman said had been decided by the Council to be below the required standard), the matter stood over, at the suggestion of Dr. Haughton, for further inquiry.

The Council then adjourned.

TUESDAY, MAY 19TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The debate on Mr. Macnamara's motion on Recommendation 20 was resumed.

Mr. MACNAMARA said it was strongly believed by the Irish Branch Council that four years of professional study were essential. The subject was more important than all the other recommendations put togetber, and if they did not take a firm stand upon it, it would be a sad thing for professional education. What had the Council done to promote the study of the numerous essential subjects named in their recommendations? They had decided that it could all be included in twenty-four months' study in a school; but would anyone gravely maintain that an adequate education could be given in all those subjects in so limited a period? He had not forgotten that by another regulation a year and a half of study could be carried on under a general practitioner. One subject on which the Irish Branch Council felt strongly was the subject of unqualified assistants. Students who had not completed their curriculum, or had not obtained any qualification, were allowed to go to a general practitioner for a year and a half, and that time might be accepted as a portion of the four years. The student, unqualified as he was, might even visit the sick poor or people of higher rank. In Ireland no such thing could happen. He had served his time as a dispensary doctor for some years, and if he had attempted to send one of his apprentices to visit a poor patient he would have been summoned before the board and summarily dismissed. He maintained that four winter and four summer sessions were little enough in which to teach subjects of so important a character. If the resolution proposed by Mr. Marshall, that the preliminary scientific subjects should be taken before the commencement of purely professional study, had been carried, the Council might then have been in a position to state that three winter and two summer sessions would suffice. With a view to making the recommendation as definite as possible, he begged to ask permission to substitute for the original motion the following: "That Recommendation 20 should be as suggested by the Irish Branch Council, that the course of professional study required for a licence shall occupy at least four years, of which four winter and four summer sessions shall be passed in any school recognised by any of the licensing bodies in Schedule A of the Medical Act."

Mr. COLLINS, in seconding the motion, said there could be no doubt that twenty-four months of medical study were insufficient for a student entering the medical profession. As to the study under a medical practitioner, in the majority of cases it was of very little value. A large number of practitioners would be unwilling to give the necessary instruction, and a still larger number of students were unwilling to receive it. After a long course of general practice, he could himself say that he had only had one pupil who was willing to receive the instruction that he (Mr. Collins) was able and willing to communicate. He had offered to prepare them in the various branches, but he could not get them to read or study; they preferred newspapers or novels.

Sir HENRY PITMAN said that Recommendation 21 required four years' professional study. The Irish Branch Council recommended that there should be four winter and four summer sessions. The question really was where the four years were to be passed. Hitherto it had been stated that at least three winter and two summer sessions should be passed at a medical school, leaving it to the discretion of the student to remain the whole time at the school or to spend some portion of the time with a registered practitioner.

Dr. HAUGHTON suggested that, as the Irish Branch Council accepted the Scotch proposal as far as it went, Mr. Macnamara should withdraw his motion in its favour, and bring forward the Irish proposal in connexion with Recommendation 21.

Mr. MACNAMARA assented to that course, and obtained permission to withdraw his motion.

Dr. HALDANE said that the Scotch proposal, which he moved, was: "No licence should be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the candidate as a medical student, and his commencement of study at a medical school."

Dr. BANKS said he wished to move as an amendment (as suggested by the Royal College of Physicians, Edinburgh): "That the curriculum should extend over five years." There was, he said, a large body of opinion in favour of that proposal, and there was a very general feeling that the period of four years was not sufficient. It appeared from a return of the University College that only 23 per cent. of their candidates passed in four years. With one exception, the period of study required in England was shorter than that required in any other country. The period in Holland was seven years; in Sweden six or seven, and sometimes ten; in Denmark two years scientific and five medical; in Norway seven years; in Belgium seven years, sometimes six, and exceptionally five; in Russia five years; in Turkey six years; in Greece five years; in Italy there was no law, but the customary period was six years; in France six years for university study and examination. It was within his own experience that the period of four years was insufficient. Clever and industrious young men who passed the examination at the end of forty-five months were often so conscious of their unfitness to begin practice that they sought for a residentship in a hospital, or endeavoured to obtain instruction elsewhere, so as to be prepared to enter professional life. The recommendation of the Royal College of Physicians, Edinburgh, which had his hearty concurrence, would, he thought, commend itself to the Council. He knew what the arguments were against any prolongation. One gentleman had stated that the time at present required was as much as the student's social and pecuniary condition would allow. He (Dr. Banks) thought that they ought not to increase the facilities for entering the profession. It was, on the contrary, desirable to extend the period, and make the examination more stringent and expensive. His remarks, of course, did not apply to the universities. In the university which he represented the earliest age at which students entered was seventeen, and it was very improbable that less than five years could be passed in scientific and professional education.

Dr. HAUGHTON seconded the motion, adding that there was no chance of carrying it.

Dr. HALDANE said that, although he was personally in favour of a minimum of five years, he could not vote for it since he was, as the mover of the motion, the mouth-piece of the Scotch Branch Council, which had not adopted the proposal.

Mr. SIMON said that the question was virtually the same as that which the Council had refused to settle on Saturday. When Dr. Banks spoke of five years he no doubt intended that the studies of physics, chemistry, &c., should be included in that period. If so, a great deal might be said in favour of the motion. But if it was the intention that the whole period of forty-five months should be spent at a medical school, however desirable it might be for the student, he thought it would be retrograde legislation. If it could be safely said that there was no part of the medical curriculum that the student could acquire elsewhere than at a medical school, by all means let there be an absolute rule that the whole period should be spent at a medical school. But if it might be assumed that certain parts could be learned elsewhere, they had no right to make a rule of that description. In fact, it would be a tyranny. His view of

Dr. Banks' amendment depended upon what arrangement was made as to the preliminary scientific subjects. His own opinion was that those subjects should be passed before the commencement of purely medical study. The best course, he thought, would be to have a few words at the end of the existing regulations to the effect that no licence should be obtained at an earlier period than after the expiration of forty-five months subsequent to the registration of the student, and subsequent to his having passed an examination in the first principles of chemistry, physics, and biology. If those subjects were cleared out of the way, the period of forty-five months would be equal to Dr. Banks' five years.

Dr. HAUGHTON said that Mr. Simon was endeavouring to revive a corpse. The question had been decided on Saturday. He himself agreed that a five years' curriculum was the best mode of accomplishing the object.

Dr. BANKS said he was willing to modify his amendment by requiring that the first year should be devoted to pre-professional training. Personally he should prefer six years to five, but perhaps that would not be tolerated.

After some further conversation as to the wording of Dr. Banks's amendment, it was submitted as follows: "That the course of study for registration, if including elementary mechanics, physics, chemistry, and biology, should occupy at least five years."

Dr. DUNCAN said that the amendment could not be adopted because the Council had already arranged a curriculum and an examination that were inconsistent with it. The preliminary examination was fully laid down in print, and would come into operation on October 1st.

Dr. QUAIN suggested that the new arrangement should come into operation two years hence.

Mr. SIMON said that the question as to when the regulations should take effect was a matter for subsequent consideration.

Dr. HUMPHRY said he supposed that forty-five months would still be considered sufficient if the candidate possessed an adequate knowledge of elementary mechanics, physics, &c., previous to registration.

Dr. QUAIN thought it would be better to fix the period and decide afterwards as to the subjects of study and how they were to be taken. The Council had decided twenty years ago that no licence should be obtained at an earlier period than after the expiration of forty-eight months subsequent to registration; and also that the examination in physics, botany, and natural history might be undergone at an earlier period than the first professional examination.

Dr. HAUGHTON: They had not discovered "biology" then.

The PRESIDENT said it was true that the Council had considered the matter twenty years ago, but now, after a long experience, it was thought desirable to reconsider it in the light of that experience, with a view of making any alteration that might be deemed necessary.

Dr. BANKS said that in former times, when there was not so many subjects in the curriculum, a five years' course was required.

The discussion was adjourned, and the remainder of the sitting was occupied by the consideration (in private) of the case of Daniel Sutherland, who had been summoned to appear before the Council.

The following extract from the printed Minutes shows the business transacted during the absence of the representatives of the press:—

Moved by Dr. HERON WATSON, and seconded by the Rev. Dr. HAUGHTON: "That the Council proceed to consider the case of Daniel Sutherland, who has been summoned to appear before the Council, and to deal with it in accordance with Clause 29 of the Medical Act."

Amendment, moved by Dr. LYONS: "That the further consideration of Daniel Sutherland's case be adjourned for the space of one calendar month, in order to give him time to prepare such defence as he may be advised to do against the serious charges now laid against him; and that Mr. Farrer be instructed to communicate this notice to him without delay."

On the motion of Dr. LYONS, seconded by Sir HENRY PITMAN, the debate was adjourned until the next day.

Strangers having been readmitted, the Standing Orders were, on the motion of Sir HENRY PITMAN, suspended until the completion of the business before the Council.

Moved by Dr. HUMPHRY, seconded by Mr. MARSHALL, and agreed to: "That with reference to the motion by Dr. Chambers, respecting a decree passed by the Convocation of the University of Oxford, Feb. 24th, 1885, in order to prevent misunderstanding, the representative of the University of Oxford be requested to make it known to the University that there is not, at the present time, any Examining Board for England."

Moved by Sir HENRY PITMAN, seconded by Dr. SCOTT ORR, and agreed to: "That the following communication from the Faculty of Physicians and Surgeons of Glasgow be received and entered on the Minutes:—

'April 25th, 1885.

'SIR,—I am directed to transmit to you a copy of the subjoined resolution of this Faculty, passed at the ordinary meeting held on 2nd March, ult., and confirmed at the ordinary meeting held on the 6th inst.

'I am, Sir, your obedient servant,

'ALEXANDER DUNCAN, Secretary.

'W. J. C. MILLER, Esq., B.A.,
'Registrar of the General Medical Council.'

"Moved by Dr. Yellowlees, seconded by Professor Gairdner, and unanimously agreed to: 'That in the opinion of this Faculty instruction in insanity should be made compulsory in medical education; and that an expression of this opinion be transmitted to the General Medical Council.'"

(It will be observed that the Minutes state that after the case of Sutherland was adjourned strangers were readmitted. No intimation, however, was given to the representatives of the press who were in attendance that the Council was in open session, and hence no report was taken of the subsequent proceedings on Dr. Humphry's motion respecting the decree of the Convocation of the University of Oxford.)

WEDNESDAY, MAY 20TH.

SIR H. ACLAND, PRESIDENT, IN THE CHAIR.

The PRESIDENT said he desired to make a personal explanation. He wished to express his regret that on the occasion of the motion of Dr. Humphry on the previous day he had not taken the opportunity of drawing the attention of the Council to the matter. He had no idea that Dr. Humphry was in earnest in bringing the motion forward. It would be remembered that the Council had been in very serious and difficult discussion on legal business. They were on the point of breaking up, and the members were in movement, when Dr. Humphry proposed his motion, which was, in fact, a vote of censure on the University of Oxford. In the peculiar position in which he (the President) stood towards the University, it was manifest that he should say nothing in its defence or explanation concerning it, and he should therefore call on the representative of the University to make any observation that he might desire to offer. But, in fact, he did not take the matter *au sérieux*, and he allowed it to pass, the motion being carried without any observation. He would not go into the merits of the case, except to say that the University of Oxford had for many years done its utmost to develop education in the direction it thought fit, with express regard to the action of the Medical Council and to the interests of the country. Its desire was not to fly in the face of the general endeavours of the Legislature to establish combined examinations, and not to fly in the face of the general sentiment of the country by multiplying qualifying titles and diplomas. Acting in good faith, it had decided that it would in its educational arrangements accept the examination of a certain body composed of eminent persons in the metropolis; upon which, without any discussion or observation, a message was ordered to be sent to the University, having reference to a decree which it had passed in a loyal spirit, that there was not at the present time any "Examining Board for England." He was sorry that Dr. Humphry was not now present. What was the meaning of the communication to the University he could not, as president, state. All that he could say was that the motion had been moved by Dr. Humphry, seconded by Mr. Marshall, and passed without observation. It would have been well if the representative of the University had ascertained precisely what the University had done. He had not seen Dr. Chambers, but he had himself telegraphed to Oxford to ascertain the exact words of the decree in question, and he had been informed that the words were "the Examining Board *of* England.' That was not right, for the words should be "*in* England." As a matter of fact, however, the University had not used the words mentioned in Dr. Humphry's motion. If there was

anyone to blame it was himself for not being quick enough, in the confusion just before the Council adjourned, to call attention to the matter. He could not suppose that so curt a rebuke upon somebody unknown was to be made, and so the thing passed. He was sorry that he had not been quick enough to call Dr. Humphry's attention to the subject, and ask him to defer it until further information had been received.

Dr. HAUGHTON said it would be remembered that the transaction occurred within a few minutes of the hour of adjournment, at a time when the Council did things that it would not think of doing at any other period of its sitting. There ought now to be an appeal from Philip drunk to Philip sober. He presumed that Dr. Chambers, when moving for the Council's sanction to the decree, was referring to the conjoint scheme of the Colleges of Physicians and Surgeons.

Mr. SIMON hoped that the President would confer with Dr. Chambers and Dr. Humphry, with a view of bringing about a satisfactory arrangement. The motion was not irregularly passed, although it was quickly disposed of, the chairman of the Business Committee moving the suspension of the standing orders for the purpose. He hoped that the President would allow the matter to drop for the present.

Mr. MACNAMARA said that the suspension of the standing orders was moved *sotto voce*, and in such a hubbub that the proposal did not reach him; otherwise he should have objected to it.

Dr. CHAMBERS said that he had made a mistake in the description of the Examining Board. He believed its full title was "The Examining Board in England of the Royal College of Physicians, London, and of the Royal College of Surgeons of England."

Mr. MARSHALL said that as he had seconded Dr. Humphry's motion, some explanation might be expected from him in Dr. Humphry's absence. The object of the motion was merely to correct an error that had been made, and not to propose a vote of censure. It did not appear to him that the matter was very serious; but if it was so regarded by the President, he would give notice of motion that the Council should leave it to the discretion of the representative of Oxford to make the communication in any way he liked.

Dr. DUNCAN said there was no such body as "The Examining Board in England."

Sir H. PITMAN: It is "*an* Examining Board in England."

Dr. DUNCAN: Everybody knows what is meant; it is the Conjoint Board of the two Colleges.

The PRESIDENT: We must ask the representative of the University to communicate to them the full title of the Board. Of course, if Dr. Humphry's motion had been simply a request to the representative to point out that the expression used in the decree was not an accurate description of the Board, and that it should have been so-and-so, there would have been no objection. But this curt message is such as to startle anybody.

Dr. QUAIN: All that Dr. Humphry meant to do was to correct an inaccuracy.

The matter then dropped.

Sir HENRY PITMAN: When the Council rose yesterday I felt it my duty as Chairman of the Business Committee to look back and see what we had done during the last eight days, and also to look forward and see what we had to do during the few days that remain of this week. I am sure no one would desire that we should sit into next week. On looking at the programme I do not suppose anyone is sanguine enough to imagine that we can get through the business before us this week. We have forty-five distinct questions on these reports by the Branch Councils alone, and there are other questions besides. To-morrow will be in part occupied by a legal case, and then there will only remain Friday and Saturday; and I feel persuaded that if this business is got through it will be done in so hasty and unsatisfactory a manner that it will bring some discredit upon the Council. Therefore I venture to suggest that, after what fell from our solicitor yesterday as to what ought to be the notice given to Daniel Sutherland for his appearance here, we should not commit even the appearance of an act of injustice, but give him fair notice and time for his defence

Dr. WATSON reminded Sir Henry Pitman that the reporters were present.

Sir HENRY PITMAN: Then I will abstain from any further remarks upon the legal question; but in regard to the time at our disposal I think after conference with the President, who agrees with me, that it would be far better to have a short session before the year expires, and that all such legal cases should be submitted to that session. We shall then get on as far as we can with the business programme of to-day, and anything which may be left unfinished, and I am satisfied that there will be much left unfinished, might also be taken at the next meeting. I think it my duty to state these facts to the Council.

Mr. SIMON said he could not quite share the pessimist views of Sir Henry Pitman. There appeared to be one or two really difficult questions in connexion with the recommendations, one of which was almost decided on the previous day, and when that question was decided the remaining business, he thought, was not more than might be got through during the present week. It would be much more convenient to get the business through during the present week than to have an indefinite future appointment.

The PRESIDENT then read a letter which he had received from Sir Henry Pitman embodying the substance of his verbal communication to the Council as to the time occupied by legal business, and asking permission to take the opinion of the law advisers of the Crown as to the readiest mode of carrying into effect the penal clauses of the Medical Act.

The Council then proceeded to consider in private the case of Daniel Sutherland, who had been summoned to appear before it under Clause 29 of the Medical Act.

On the readmission of strangers, the Registrar announced that, having heard evidence and considered the defence of Daniel Sutherland as stated in his letter of May 13th, the Council resolved and adjudged him, after due inquiry, to have been guilty of infamous conduct in a professional respect, and, further, directed his name to be erased from the Register.

The adjourned debate on the reports by the Branch Councils in regard to the recommendations was resumed.

Dr. BANKS submitted his amendment to Dr. Haldane's motion in the following form: "That the course of medical study after registration should occupy at least five years, if the subjects of elementary physics, chemistry, and biology are included in that period, or at least four years if a satisfactory examination in these subjects has been passed previous to registration."

Dr. STRUTHERS, in supporting Dr. Haldane's motion, said he was strongly of opinion that four years of genuine study were sufficient, and that a fifth year would be a tax on ability and industry, keeping back the better-class of students. An average man, if industrious, could complete his course satisfactorily in four years. Many of the physicians and surgeons who had sent in their answers to questions addressed to them had declared their opinion that a period of four years was ample. Some said that four years were not enough. Not enough for what? Of course not enough to make consulting physicians or surgeons; but that was very different from simply entering on the practice of the profession. In Germany the period was four years, and during the whole of the first year the student was working at chemistry, zoology, mineralogy, and natural philosophy, the first examination taking place at the end of the second year. The French system was also an example in favour of Dr. Duncan's proposal.

Dr. DUNCAN said there was not much difference in the two proposals, but Dr. Banks' amendment overturned the decision of the Council as to the preliminary subjects, and he should therefore vote against it.

Dr. PETTIGREW supported the motion, and said he thought it would be very foolish to keep back industrious and intelligent youths and encourage lazy ones by extending the period to five years. He hoped that the Council would see its way to adopt that recommendation, and would be careful to introduce only such subjects as were fundamental and necessary. The students ought to have fewer subjects and more time to reflect as they proceeded with their education.

Dr. WATSON said he objected to Dr. Banks' amendment because it did not compel the student before beginning his professional study to put behind his back the subject of systematic chemistry, neither did the arrangement compel the students to pass an examination in systematic chemistry at the end of the first session, but he would be permitted to carry it on to a period in the course of his curriculum in which the study of it would seriously interfere with the study of such matters as anatomy and physiology. If a period of forty-five months were properly made use of it ought to afford abundant time for the student to acquire the

kind of formal systematic knowledge which was all that could be really expected from him.

Mr. SIMON, in supporting the amendment, said he could not see in the Scotch motion any security for getting in the purely medical education the desired relief from the preliminary subjects. If the professional curriculum was to be weighted with the elementary subjects five years would be wanted to do justice to it. The amendment permitted an alternative of four years with the understanding that an intermediate examination was passed before the strictly professional studies commenced.

Dr. BANKS referred to the case of Austria, where a period of five, six, and sometimes seven years was required, and cited Billroth's figures to that effect. Almost every young physician in England found it necessary to prolong his studies beyond the four years before commencing practice. The Scotch bodies were not unanimous in regard to their recommendation of four years, the Royal College of Physicians, Edinburgh, recommending five. At the Royal College of Surgeons, England, only 23 per cent. of the candidates obtained their diploma in four years.

Mr. MARSHALL recommended that the matter should be delayed, with a view of obtaining more unanimity on the subject. He was willing to accept the alternative provided in Dr. Banks' amendment, for there ought to be a certain flexibility in the arrangement, and it ought not to be too strictly enforced on the corporate bodies. Hospital authorities would not allow a house-surgeon to be appointed unless he was qualified, and if a man were not allowed to qualify until he had had an additional year of study a hardship would be inflicted on the student.

Dr. HUMPHRY thought the Council should be careful not to extend the minimum period of education too much. The question was whether the period assigned was sufficient to enable a student to obtain a fair knowledge. Fifteen per cent. now passed into the profession in the assigned period, and they ought not to be prevented from earning their livelihood. He did not suppose that any of the licensing bodies would at once alter their arrangements.

Mr. TEALE considered it important not to choke up the minimum examination to be passed in four years. In the Leeds Infirmary there were four persons under the house-surgeon who used to be called assistant resident medical officers. Until recently they were students who had passed all the requisite examinations, but had not obtained any qualification. Four or five of the best students were always competent for such appointments; but a year and half ago it was decided to appoint only qualified men, and the result had been that only on one or two occasions since had students from the infirmary school competed. He was inclined to vote for the modified, elastic proposal by Dr. Banks; it would still be open to the licensing bodies not to adopt it at once if they did not see good reason for it.

The amendment was carried by 11 to 8, and was also agreed to as a substantive motion.

The following foot-note was agreed to without discussion:

"Exception may be allowed in the case of any graduate in Medicine of an Indian, Colonial, or Foreign University, or of any student who, having completed the full time required by the Medical Council, and having given satisfactory evidence of general education, shall have spent the whole or three-fourths of that period at an Indian, Colonial, or Foreign University, the several licensing bodies being requested to communicate to the Council annually, in the month of January, a statement of the action taken by them respectively during the last preceding calendar year in regard to such exceptional cases."

The following existing Recommendation was then considered:—"The course of professional study required for a licence should occupy at least four years, of which four winter and three summer sessions should be passed at any school recognised by any of the licensing bodies mentioned in Schedule A of the Medical Act."

Sir H. PITMAN moved: "That the Recommendation be as follows:—'At least three winter and two summer sessions shall be passed at some school or schools recognised by one or more of the licensing bodies.'"

Mr. SIMON seconded the motion.

Dr. HALDANE moved as an ammendment: "That the recommendation be as follows:—'At least four winter and three summer sessions should be passed at any school recognised by any of the licensing bodies mentioned in Schedule A of the Medical Act.'"

Mr. MACNAMARA seconded the motion. He maintained that the subjects were so extensive, and the examinations so searching, and in some respects so practical, as well as theoretical, that the time mentioned in the amendment was the least that should be required if the student was to be adequately instructed."

The debate was then adjourned, and the remainder of the sitting was occupied with the transaction of some formal dental business.

THURSDAY, MAY 21ST.

The debate on Recommendation 21, respecting the time to be passed by the student at a recognised school, was resumed. Before it concluded, the Council proceeded (in private) to the further consideration of the case of Ebenezer Bryceson, which occupied nearly all the remainder of the sitting. On the readmission of the public, it was announced that the Council had decided that Ebenezer Bryceson had been guilty of infamous conduct in a professional respect, but did not, under all the circumstances, now direct his name to be erased from the Register. The Council then adjourned. It was stated that the sittings would not be prolonged beyond Saturday.

THE PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

THE revised regulations for the above examination at the University of London have just been issued. The examination will take place twice a year, once for Pass and Honours, commencing on the third Monday in July, and once for Pass candidates only commencing on the third Monday in January. Candidates for the Pass Examination will be allowed to take all the three subjects of the examination—(*a*) inorganic chemistry, (*b*) experimental physics, and (*c*) general biology—at the same examination, or to take them at two separate examinations—that is to say, two subjects at the First Examination for which they may enter, and one subject at the Second Examination; or, reversely, one subject at the First Examination, and two at the Second. At the July Examination candidates have the option of entering for a Pass or Honours in inorganic chemistry and experimental physics; but they cannot take up Honours in botany and zoology unless they have entered for the whole examination, including—that is, a Pass in general biology. In chemistry and physics no candidate will be allowed to take both the Pass and the Honours papers in the same subject; but if he enter for Honours and fail to obtain them, he may be recommended for a Pass in those subjects provided he has shown a competent knowledge. The examiners will make no report upon the examination for Honours of a candidate who has failed in any part of his Pass Examination.

A detailed syllabus of the subjects required in a Pass Examination is given, and also of the subjects required in the Zoology Honours Examination. The following are the requirements for a Pass in general biology:—

The elements of vertebrate morphology and physiology as exemplified by the rabbit, the fowl, the pigeon, and the frog. The description of the external form and the nomenclature of the parts of these animals. The leading resemblances and differences in the plans of structure of the three. The chief features in their osteology, with especial reference to the skull and limbs, and the visceral anatomy of each, including the general structure of the brain, the spinal cord, and the sense organs. The histological character of blood, epidermal and epithelial organs, connective tissues, cartilage, bone, muscle, and nerve in these animals. The characters and mode of formation of their ova and spermatozoa. The chief stages of the development of the frog, fowl, and rabbit. The nature of the placenta in the latter. The structure and life history of astacus, lumbricus, helix, distoma, hydra, vorticella, and amœba. The elementary morphology and physiology of the flowering plant. The description of its external form. The leading modifications in the structural plan of the flower. The leading types of fruits; the modifications by which floral organs take part in their structure. The histological characters of the growing point both in stem and root; the mode of origin and leading characters of epidermal, fibro-vascular, and ground tissues. The development of foliar organs and of the branches of stem and root. The mode of origin, structure, and ultimate development of ovules and of pollen grains. The mode of development of the embryo and of the endosperm. The distinctive facts in the life history of pinus. The structure and life history of a fern, a moss, chara, fucus, penicillium, spirogyra, mucor, protococcus, saccharomyces, bacterium. Practical examination (six hours). Each candidate must be prepared to examine microscopically, to dissect, and to describe, specimens of the animals and plants referred to in the preceeding syllabus.

There is also a practical examination in chemistry, comprising qualitative analysis of the more commonly occurring bases and inorganic acids, in solutions containing one of each. A list of reagents and apparatus provided for this examination is appended.

The regulations, although issued too late to appear in the current volume of the University Calendar, will come into force at once; or rather candidates, who so desire, will be allowed forthwith to take advantage of the changes introduced in the revised regulations.

THE LANCET.

LONDON: SATURDAY, MAY 23, 1885.

DURING the past fortnight the agitation for increasing the facilities for obtaining degrees by students educated in the London medical schools has been steadily progressing. On one point all are agreed—namely, that industrious students of average ability and sound professional attainments are placed at a great disadvantage if they elect to pursue their full curriculum in the metropolis. In spite of what we may perhaps venture to call the best professorial and teaching staff and the greatest clinical opportunities that can be found anywhere, students are debarred from entering the London medical schools, and are driven elsewhere by the want of facilities in obtaining degrees. At the present time a degree is not only the object of legitimate ambition of a well-informed student, but, owing to the multiplication of universities and the easy terms on which it can be obtained in most university centres except the metropolis, it has a distinct commercial value to the practitioner, and this is being recognised more clearly year by year. The question, then, of how a similar advantage can be fairly secured to the London as to the provincial student is most pressing, and one which London teachers and educational authorities are anxiously considering and endeavouring to answer. In a multitude of counsellors there may be safety, but just now chaos reigns supreme, and all kinds of solution of the difficulty are being proposed and eagerly pushed into prominent notice. The practical methods of solving the problem are very few, and may readily be pointed out. The University of London is naturally the first institution to which we must turn. But the prejudices in favour of the vested interests of the present holders of its medical degrees and the traditions of the University will, in spite of all appeal, oppose any such levelling as is contemplated in the idea of a degree for average students. We have always contended that the University of London has mistaken its true function, and has sacrificed its real position as the centre of metropolitan medical education and the *alma mater* of London students, to the lesser aim of maintaining a high examination-standard, and of only numbering a select few among its graduates. Indeed it was only after a long struggle, and in the most grudging spirit, that the slightest departure from its ancient rigid regulations has been conceded. The Vice-Chancellor, at the recent presentation for degrees, intimated that little else than some slight modifications in its entrance examination would be done by the Senate to meet the popular demand. The degrees of this University, according to Sir JAMES PAGET, must only be obtained by showing a greater amount of medical knowledge than is required by any other degree-granting body. The prestige of its degrees must be steadily maintained. That this isolated position is not held by all the members of the Senate and graduates is well known, and is clearly shown by the action of Lord Justice FRY's Committee of Convocation; but much pressure, and a steady infusion of educational reformers into the ranks of the Senate will be required before they are likely to be induced to depart from this standpoint; and the life tenure of its senatorships, aided by Crown nominations, is a grievous difficulty in the way of any real reform. All we can expect is petty tinkering and some small modification of the existing regulations. Seeing this, those who are anxious that all impediments should be removed from a medical student's career in London have turned their attention to the great corporations of the Royal Colleges of Physicians and Surgeons, and the recent fusion of their examinations has made the moment a most favourable one. On his recent re-election as president, Sir WILLIAM JENNER suggested that this question of degree-granting should be inquired into by the two Colleges; and last week the Council of the College of Surgeons, by a unanimous vote, appointed seven of its most influential members as delegates to meet a similar number from the College of Physicians, and confer as to "what steps, if any, can be taken to enable the two Colleges to obtain the legal right of giving the title of 'Doctor' to persons who shall have obtained the licence of the Royal College of Physicians of London and the diploma of the Royal College of Surgeons of England." This movement has apparently caused great surprise, and, now that it has an actual existence, a great conflict of opinions as to its wisdom. The proposal is to give the *title* of "Doctor," and not to confer *degrees* such as M.B., M.D., M.S., or B.S. The scheme will probably have the sympathy of most London teachers, and the best wishes for its success among the London students. On the other hand, it will be sturdily opposed by the graduates and authorities of every university in the kingdom, who will look upon it as an infringement of their rights and privileges. "Degrees should only be given by universities" will be their contention, and the conferring of a title will be confused by them with the granting of a degree. A greater objection, in our opinion, is that, although the medical examinations of the two Colleges fully warrant such a title, those in Arts and Science cannot be deemed satisfactory. A second division in the second class of the Pupils' Examination at the College of Preceptors, even if a Latin author who is never changed and a modern language be taken up, is too low a standard, and some other preliminary examinations now deemed sufficient for registration are but little better. A title of "Doctor" should imply more than this minimum of education in Arts. Physics and Chemistry are included in the Conjoint Examination Scheme, but Biology is unrepresented, and surely some slight acquaintance with this science should be a necessary preliminary to a title of "Doctor." These defects in medical education seem to us greater objections to the present movement than the opposition which may be anticipated from the Universities, in many of which medical examinations are less searching and complete than at the two Colleges.

Another body which must also be referred to in this question is the embryo Teaching University for London, whose future it is as yet very difficult to forecast. Will it merge into the University of London? If so, it will probably be of small use to students of medicine, however much it may affect those in Arts and Science. But if it attains to an independent existence, and holds out its hands to the great legal and medical corporations, as well as to the

educational bodies, it may be of the utmost service to medical education by supervising the preliminary knowledge and examining in Arts and Sciences, leaving the strictly technical examinations to the existing authorities. We infer that some such idea exists among its promoters, as at its meeting on Monday last, in considering how boards of studies and a governing body should be best constituted, so far as the Faculty of Medicine is concerned, it was expressly stated that in addition to the teaching element, representatives of the Royal Colleges of Physicians and Surgeons would be invited to take seats amongst the governing body.

THE General Medical Council has displayed a new quality. Its most redoubtable champions, up to Saturday last, would not have maintained that, with all its virtues, it was capable of promptitude. But in one brief moment the supposition of this "fair defect of nature" has been refuted. One act of decision gives hope of more, and we can only trust that a new future of firmness and business-like faculty is in store for this much-abused body. The peculiar nature of the subject in regard to which the Council showed this unexpected quality may be thought by some to derogate from the significance and the merit of its action. There is certainly something in the proximity of money which taints even the best natures, and throws a certain air of vulgarity over the highest conduct. So it is rather unfortunate that the noble action of Saturday had reference to a financial question. The Council is in trouble about money matters; not in the vulgar way of impecuniosity,

> "That horrid want of pence
> That vexes public men."

The difficulties of the Council are all the other way—the *embarras de richesses*. But, even so, they are becoming serious. Last year the Council received, chiefly from the shallow pockets of the entrants of the profession, no less than £8424 2*s*. 3*d*.—the largest sum, we presume, it has ever received in one year. Certainly there is nothing like it in the last seven years; and it is in excess by £478 14*s*. 9*d*. of the sum received in the year 1883. There is one virtue that nobody will deny the Council—that of knowing how to spend money; and with rising income it feels the corresponding duty of expenditure and cultivates its powers. Still it did not succeed in the last twelve months in making ends meet. It succeeded in spending the handsome sum of £7084 6*s*. 7*d*.—more by £2633 than the expenditure of 1883, and this upon perfectly impalpable objects,—but yet had to leave £1339 15*s*. 8*d*. unexpended, to be added to the ever-increasing investments of the Council, which now amount to £38,669 17*s*. The average income of the last three years has been £7884 12*s*. 6*d*., and the average expenditure £5452 1*s*.—showing an annual excess of income of £2432 11*s*. 6*d*. This is the pleasant dilemma of the Council—an income altogether disproportionate to the work done, and the prospect of an ever-increasing disproportion. The best members of the Council feel a good deal of discomfort on the subject, and a corresponding desire to do something to abate the scandal. Accordingly, two or three schemes have been suggested for this end. One, by Sir HENRY PITMAN, proposed the appointment of a committee to consider in what way to use the accumulated funds of the Council, so as to promote "scientific research for the public good." Dr. LYONS moved an amendment to this, and required that the application of the funds, while for the public good, should be "in conformity with the duties imposed on the Council under the Medical Act." Both these motions were negatived without much discussion on Friday, the 15th inst. But it was on Saturday, the 16th, that the unprecedented display of promptitude and decision occurred on a proposal by Mr. SIMON, seconded by Mr. MARSHALL. The motion was altogether reasonable and to the effect that the Finance and Executive Committees should consider and jointly report to the next meeting of Council whether the registration fee of £5 is more than enough to provide for the full efficiency of the Council, and whether the Council might properly proceed to a reduction of the fee. The very thought of delay in dealing with such a motion was intolerable. It was demanded that the Council itself should decide the great question immediately and on the spot. And, accordingly, all forms of notice being dispensed with, the Council went straight to the affirmation of the following proposal by Dr. HAUGHTON:—"That the registration fee remain *in statu quo;*" and then, with an easy mind, broke up for the Sunday's rest. The profession, however, will not contemplate the growing proportions of this disused and ever-increasing fund with the same satisfaction unless work is done by the Medical Council very different from what it has done this session, or even in the two sessions of last year, when it succeeded in spending £7084, and nearly £3000 of this over its own members. We cannot point to one act of the Council in the present session or in the last year that is of the least consequence in regard to medical education, or to one discussion that would redeem the reputation of the Council as a public body charged with vindicating the sanctity of medical registration and the rights of registered practitioners.

As a specimen of the work over which the £7000 is spent, we will give one instance, not to revert again at present to the perennial theme of Preliminary Education. The Council has been understood of late to be full of great ideas of extending the time of medical education, and throwing back the age at which a licence to practise could be secured. The existing Regulation as regards age is as follows:—"The age of twenty-one *shall* be the earliest age at which a candidate shall obtain a licence to practice, and the age shall in all instances be *duly* certified." Two great operations have been performed on this recommendation. The word *should* has been substituted for *shall*, and the word "duly" has been omitted altogether. Even with such discussions the Council cannot use up its large income, and yet strenuously opposes any diminution of it. Will Parliament and the profession always be so powerless to control a Council at once so useless and so costly?

The Council, on Wednesday last, passed a motion by Dr. BANKS, seconded by Dr. HAUGHTON, extending the course of study over five years, if the subjects of elementary physics, chemistry, and biology are included in that period; or at least four years, if a satisfactory examination in these subjects has been passed previous to registration. This recommendation looks serious, but Dr. MATTHEWS DUNCAN declares it to be practically a mere reaffirmation of the existing recommendation of the Council, which contemplates the disposal of the

subjects of physics and chemistry before the commencement of the four years of strictly medical study. And so the money of the profession and the time of the Council are spent.

THE Report of the Royal Commission on the Housing of the Working Classes has been received with a very general feeling of disappointment. The constitution of the Commission, and the time and labour devoted to the collection of evidence, had created hopes which have not been realised. It had indeed been expected that some definite and substantial remedy would be advanced for conditions which have long been thoroughly recognised and universally condemned. That the Report is almost barren in this respect is, perhaps, due less to an inability on the part of the Commissioners to grasp the subject with which they have had to deal than to difficulties which surround the question on every side.

If further evidence were required, it has been abundantly forthcoming, that overcrowding and its attendant evils exist to a very large extent in the metropolis and in other large towns, and that this, moreover, is the result of circumstances which the State has not been well able to control. Working people, with small and variable earnings, have been obliged to live near their employment, and hence opportunity has been given for high rents to be demanded for the worst accommodation; middlemen and others interested in house property have bought up the ends of leases when houses have been falling into decay, and have failed to keep them in proper condition. Freeholders have, in their turn, neglected to exercise the powers they possessed for maintaining their property in habitable condition, and sanitary authorities have not exerted themselves to enforce the provisions of the Sanitary Acts which affect this question. Thus, by neglect of duty with regard to the state of repair of dwelling-houses and by a system of overcharge, the working classes have suffered heavily both in their pockets and in their comfort.

But even if freeholders and sanitary authorities had done their duty and the owners of tenement houses had been satisfied with moderate profits, there would still be a great lack of accommodation, for at the present time the scarcity of space upon which suitable dwellings can be erected presents a physical difficulty which is not easily met. Increased facilities for railway travelling at reduced fares may assist a few to live at a distance from their work, but the loss of time spent in daily journeys is in itself a severe tax to those for whom time has a money value.

Thus, the Report has had to concern itself with a multitude of considerations, each, perhaps, important in its way and having more or less bearing upon the subject; but it leaves a strong impression that the remedies suggested are not very potent, while some of them raise questions of considerable moment. For instance, the proposal to devote for the purposes of artisans' dwellings the forty-five acres in the metropolis now occupied by prisons is an expedient that would give temporary and partial relief to the congestion of the districts in which the prisons are situated, while the further suggestion that in fixing the price "due regard should be had for the purposes to which it is intended to devote the land" has, indeed, raised a question which appears in its true light only when consideration is given to Lord SALISBURY's proposal that the sites should be sold at cost price to some trust that will build workmen's dwellings upon them. The greater the desire to find an effectual remedy the greater the risk of accepting a principle which, on the face of it, seems to commit the State to socialism; for in this sense only can be construed the suggestion to provide accommodation for less than its money value. It is, however, a well-recognised fact that the condition of the working classes reacts on the whole community, and no objection need be taken therefore to the recommendation that the State should lend money for the erection of artisans' dwellings at the lowest possible rate, without loss to the national exchequer.

The enunciation of the principle upon which we have dwelt is, so far as we can see, the one thing novel in the Report; for the rest, old-fashioned remedies are once more exhibited. The amendments which are recommended in existing Acts appear to be well considered, and probably some good would result if they were carried into effect; thus, the proposal that the cost of proceedings under TORRENS' Act should in small districts be shared by adjoining districts will perhaps give some impetus to improvements under this statute. Again, the proposal to revive Lord SHAFTESBURY's Act, which under the vestries has been a dead letter, by transferring it to the Metropolitan Board of Works, awakes a hope that it may yet have some influence for good. Much stress has been laid upon the default of local authorities to make and enforce regulations under the 35th section of the Sanitary Act for houses let in lodgings. While fully endorsing the opinion that these regulations would be beneficial, especially for the reason that they would tend to shorten proceedings which are otherwise necessarily tedious, it is obvious that there has been too much disposition to judge of the work of local authorities by this criterion and to overlook the action they have taken under other sections. The recommendation with regard to the position of medical officer of health is important, as giving recognition to the value of the service rendered by this official; but it should not be forgotten that he cannot be debarred from practice until his remuneration is placed upon a better footing, and until his tenure of office is more secure.

But while Acts are amended and recommendations are made that their provisions shall be enforced, the motive power is still wanting for this purpose. Until a wider public interest is created in the metropolis and elsewhere in local affairs, alterations of the statute-book are of little avail. That the efforts of the Commission may assist in this direction is certainly probable. The fact stated by Lord SHAFTESBURY, that very great improvement had taken place in the last thirty years in the dwellings of the working classes, is itself full of promise; and we may therefore hope that this improvement will continue, although no immediate remedy has been indicated by which the change is to be brought about.

THE report, which appears in another column, of a general meeting of the Association of Fellows of the Royal College of Surgeons of England, held on Wednesday last, contains the welcome information that a possible basis has been dis-

covered for the combined action of the Associations of Fellows and Members in their endeavours to amend the constitution of the Council, and to reform the general and academic administration of the College. Many circumstances have co-operated to give to the Royal College of Surgeons of England a large and almost predominating influence over medical education in this country; but, we repeat, the College as a political body has hitherto consisted only of the four-and-twenty gentlemen who have succeeded in getting themselves elected members of the Council. Though by implication the College is made up of Fellows and Members and a small governing body named the Council, the latter, in accordance with the pernicious traditions upon which the College was originally founded, has arrogated to itself all the power, influence, authority, and prestige which should strictly belong to the whole of the body politic and corporate. For the first forty-three years of its existence the Council was not only self-elected (so-called), but every member of it was elected for life. Forty-two years ago the order of Fellows was constituted, from and by whom members of Council have since been elected for a period of eight years, though eligible for re-election. Experience has, however, proved that this alteration, for well-known reasons, has had but little effect in restraining the vagaries of the Council or in increasing the influence of the Fellows in legislative acts of the College. After election every member of the Council at once passes out of the reach of remonstrance by the Fellows. How completely the Council regards itself beyond and above the censure of the Fellows is shown by its repeated rejection of many of the recommendations proposed by the Association of Fellows to be introduced into the new Charter. But, grievous as may be the lot of the Fellows, that of the Members is worse. From the first day of its existence until now the Council has done all within its power to render the status of *Member* of the College contemptible. Every charter, bye-law, standing rule, and ordinance has been conceived and executed in a spirit of antagonism to the Members. Members have been denied the right to sit in, or vote for members of, the Council, and one of the first bye-laws made by the Council was to the effect that no Member of the College should be eligible for the office of secretary. The spirit of this bye-law is still zealously fostered. How significant is the contrast with the College of Physicians in this respect! When these and the other disabilities imposed on the Members of the College are borne in mind, it is not surprising that the Association of Members has been provoked to demand a due and authoritative recognition of the corporate and academic rights and status of Members. The first proposals of the Association of Members were startling in their extent and pretensions. To confer electoral privileges upon any and every medical student as soon as he should succeed in obtaining the diploma of Member would, we believe, be neither conducive to the welfare of the College nor useful to medical education and legislation. The compromise suggested by the Association of Fellows ensures a reasonable and equitable representation of the special interests of the Members, at the same time that it commits the care of these interests to the consideration and keeping of those Members whose stability and stake in professional life imply adequate obligation and responsibility.

Annotations.

"Ne quid nimis."

MR. ERICHSEN, F.R.S.

ALL who take an interest in the Royal College of Surgeons of England will learn with regret that Mr. Erichsen has resolved not to seek re-election into the Council next July. Few persons beyond those who have followed the business of the Council closely are aware of the great services which Mr. Erichsen has rendered to the Fellows and Members, and of the impetus which his efforts have given to the cause of reform. Immediately after his election in 1869 he redeemed his pledge to seek for the Fellows and Members the right of holding meetings in the College. To these endeavours they are indebted for the facilities for holding the two general meetings in the year 1870, and the memorable meeting of March last year, when the alterations proposed by the Council to be made in the Charters were presented. But not only were the Fellows and Members indebted to Mr. Erichsen for the facilities for holding the last meeting, but it was through his personal action and interference that the occasion was discovered and secured; otherwise the alterations would have been smuggled through the Council without their knowledge. At all times Mr. Erichsen has been a loyal and strenuous supporter of the rights of the Fellows and Members, and in return he may rest assured that he has won the confidence, respect, and esteem of all, to a degree and in a sense unusual to members of the Council, if not entirely unprecedented.

WORRYING THE "MAD DOCTORS."

IT is characteristic of the human mind that when it once becomes disturbed on any subject it takes the worst possible view of the question at issue, and is liable at any moment to be worked, or likely to work itself, up to a very furor of indignation on the mere suspicion of personal wrongs in connexion with the suspicion awakened. This peculiarity is wont to assert itself, in and out of season, with striking, and occasionally inconvenient, force upon the slightest provocation. If a dynamite raid is made on public offices, private, and even obscure, citizens are panic-stricken with the fear of being singled out for the attack of the traitorous. If somebody suffers from lead-poisoning, the whole community is agitated with apprehension of a similar calamity. The diphtheria in milk of a small dairy supply in a limited area incites the multitude to eschew that generally wholesome and nutritive commodity altogether. There is therefore nothing unnatural, or indeed very remarkable, in the fact that those who feel themselves aggrieved by being, at any period of their lives, confined in lunatic asylums should take advantage of the opportunity afforded by a paroxysm of public lunacy law reform to worry the "mad doctors." Those who keep licensed houses for the insane, and those who sign certificates of lunacy, are having what our neighbours across the Atlantic euphemistically describe as "a bad time." We are sympathetically sorry for our brethren in trouble, and for those in bondage through fear of harassings and avengings similar to those which have fallen on the heads of the guileless, but, as it seems, not guiltless, victims of recent raids at law. How, and when will it end, this persecution of the innocent but wrong-doing medical practitioner in lunacy? Everybody who knew anything about the matter must have been aware that there was plenty of loose and perfunctory examining and certifying; and those who had adequate notions of the way in which the Commissioners in Lunacy had contrived to reduce their supervision to a ridiculous farce must have been prepared to discover that the existence of a standing Commission in Lunacy, so far as the

safety of the sane was concerned, afforded no real protection. We are unwilling to aggravate the troubles of these troublous times in lunacy, or we could not hesitate to insist strongly on the need of entire reconstruction at Whitehall. Indeed, we sincerely trust that, as Lord Shaftesbury feels compelled to resign, advantage will be taken of the opportunity to place the Commission on a new and totally different footing, with some sort of guarantee that its duties will be discharged in the future better than they have been in the past. Something more than "ticking off" the inmates of asylums on a list, and looking to see whether pots are clean and sheets carefully folded, with a little office business consisting mainly of the mere clerk's work of seeing whether the blank places in certificates are properly filled in, is necessary for the welfare of the insane and the security of Her Majesty's rational subjects; and more may certainly be expected of a Commission which costs the country upwards of £15,000 a year. Except for the *publicity* involved in the presentation of reports to Parliament, we do not believe the Commission would be worth 15,000 pence. If the Commissioners in Lunacy had done their work earnestly in the spirit as well as the letter of the law, this worrying of the "mad doctors" would have been impossible, because there would have been nothing of which to make an occasion for persecution—nothing, in fact, of which to complain.

CONFERENCES ON CHOLERA.

THE recent conference upon cholera held at Berlin did not make any notable advance upon the position taken up by the same body of scientists at their gathering last summer. To be sure, much has happened since then and a great deal more information has been obtained concerning the comma bacillus and its allies. Thus Professor Koch had in the first place to meet the numerous objections that have been raised during the past six months to his view that the comma bacillus is to be regarded as the actual cholera germ. The members of the conference now, as then, appear to have tacitly or openly coincided with Professor Koch's doctrine and all that flows from it. Indeed, had it not been for the presence of Professor von Pettenkofer there would have been little to debate about. Roughly speaking, the supporters of the bacillary doctrine represent the contagionist side, the opponents the non-contagionists, which has such ardent advocates as Dr. Cuningham and Sir Guyer Hunter. No doubt the battle will be fought over again at Rome, for Professor Koch represents Germany at the conference now assembled there. Professor von Pettenkofer's difficulties in admitting the comma bacillus to be the cause of cholera rested on many grounds, but in the main upon the epidemiological data, especially those having reference to the influence of locality and season. Yet he seems to have admitted the dissemination of cholera by human intercourse, although he could not admit that the introduction of a case of cholera on board ship could be the starting point of an epidemic. Altogether the doctrines enunciated by Professors Koch and Virchow seem to have had more cogency and to have been more definite than those advanced by Professor Pettenkofer. A great deal has been made of the question of drinking water, the purity of which does not seem to Professor Pettenkofer to be of such importance as the conditions of soil; and the often-cited instance of Fort William was claimed as proof of the truth of both assertions. But, as Professor Virchow pointed out, an improved water-supply necessitates improved means for the disposal of waste; and although the analogy he drew between typhoid fever and cholera may not be fully grounded, there is much to be said for it. The practical outcome of the conference was the recommendation of measures for the prevention of the spread of epidemics, the most important of which is the separation and isolation of the sick. At the same time the futility of the adoption of quarantine on land, such as, for example, was witnessed on the Italian frontier last year, was fully recognised. How far the conference at Rome will adopt the same course as that at Berlin is doubtful; in the present state of marked divergence of opinion and in view of the resolute tenacity with which unproved dogmas are held one cannot expect anything like unanimity from a heterogeneous gathering. Nor until agreement is arrived at as to the nature of the disease can we hope to formulate clearly the measures wherewith it must be combated with any hope of complete success.

THE ROYAL VISIT TO NETLEY.

AMONG the many noble qualities which characterise Her Majesty the Queen there is probably none which more endears her to the public than her sympathy with the afflicted and suffering. This has been often displayed in the case of her wounded soldiers on their return to their native land, and has not been wanting on the occasion of the present war in the Soudan. On Saturday last Her Majesty, attended by Princess Beatrice and Prince Henry of Battenberg, visited the sick and wounded in our great invaliding hospital at Netley. Her Majesty was met at the railway station by the General commanding the district and the Assistant Adjutant-General, and was attended by them to the hospital. There Her Majesty was received by Surgeon-General Murray, the principal medical officer, and by Professors Longmore, Smith, and De Chaumont, the chaplain, the Rev. J. C. Edghill, and Mrs. Deeble, the lady superintendent of nurses, who wore the Royal Red Cross and a medal conferred on her for her services in Egypt. Her Majesty visited the medical division, where the convalescents were drawn up in the corridor, the surgical division, where the wounded are under treatment, entering into conversation with many of them, and the sick officers' quarters. There were in the hospital at the time 71 wounded and 146 sick from the Soudan and Egypt, and shortly after Her Majesty left 83 more sick and wounded arrived from the Soudan. The effect of these visits of the Queen to the sick and wounded cannot but be gratifying to the army and cheering to the poor fellows, as showing the warm interest taken in them by Her Majesty and the members of the Royal Family. The visit on the present occasion was all the more to be appreciated as it involved a considerable amount of exertion and personal fatigue on the part of the Queen, who travelled from Windsor for the express purpose, returning to the Castle the same day.

CUTANEOUS AND DEEP REFLEXES.

THE tenth original article of the *American Journal of the Medical Sciences* gives the results of some observations on the cutaneous and deep reflexes. Dr. Philip C. Knapp of Boston, U.S.A., has examined the condition of the reflexes in 239 individuals admitted to the Boston City Hospital during the latter half of the year 1883. The points noted were the presence or absence of the different reflexes in each patient, together with a comparison of the reflexes on the two sides of the body, and a rough estimate of the degree of contraction after irritation. The following are the conclusions at which the author has arrived:—1. Absence of the plantar or cremasteric reflex is usually pathological, depending upon a direct lesion of the reflex arc or some cerebral disturbance. 2. Absence of the other cutaneous reflexes is not necessarily pathological. 3. Absence of the patellar reflex may be due to cerebral disturbance, especially in alcoholic subjects. 4. Ankle and patellar clonus are pathological. 5. The deep reflexes of the upper extremity are

of frequent occurrence, and have no special pathological significance. 6. The costal reflex is found in the majority of cases without general exaggeration of the reflexes, and with no signs of phthisis. 7. When the reflexes differ on the two sides of the body, though it usually signifies some unilateral disease of the nervous system, it is not always pathological. On the whole, the above propositions accord with the observations of Buzzard, Gowers, and others who have worked most at this important question. That the patellar reflex may be absent from cerebral disturbance is most probably correct; nevertheless it would be difficult in many cases to exclude the possibility of a direct damage to the reflex arc itself. The frequency with which the deep reflexes of the upper limb are present in cases of disease of the brain and spinal cord has probably been overlooked as the result of imperfect examination; and we are disposed to agree with the conclusions of Dr. Knapp.

BULLYING AT SCHOOL.

THE parents of most public school boys have had to undergo the painful experience of obliging a poor little boy to return to school in a state of dejection, if not in abject misery. The child has gone willingly enough to his preparatory school, where his companions are very much of his own age, and where he can hold his own. There, also, he has been tended with some approach to parental care. But his first few terms at a public school, whether as day boy or boarder, are a new experience to him of trial and often of wretchedness. All this becomes more or less known to his parents in the holidays. When term time approaches the boy gets miserable. The family doctor is often called in to arbitrate between father and mother, and settle whether the poor little fellow is well enough to go back to school or not. It is not often that the same ordeal has to be undergone in the case of girls, for school to them has attractions and often fascinations which in most instances are absent from boys' schools. It is not that school mistresses are less severe in discipline than masters, nor that the work at a girls' is less arduous than at a boys' school. The difference is that little girls are much petted by the bigger girls, whereas little boys are commonly browbeaten and oppressed by bigger boys. Any boy brought up in a refined home, under the guardianship of sensitive and high-minded parents, will in all probability experience some of the heaviest trials of his life during his first year or so at a public school. He will be buffeted about by his bigger schoolfellows, and often subjected to coarse and obscene language, and there will be little or no redress for him. We do not imply that every elder boy at school is obscene and brutal; but in most schools there is a number of really bad boys, and these sometimes from the highest social rank. As one black sheep taints the flock, so one evilly disposed boy contaminates "the set" he is in, and bullies all weaker than himself. It is often opposed to the immediate interest of the school to get rid of such a boy, for his parents may be influential. There are few places where one law for the rich and distinguished and another for the poor and obscure are so tacitly acquiesced in alike by masters and governors as at our public schools. We have often been struck by the dread parents have of making their dissatisfaction known either to the authorities or through the public press, for fear of the unpopularity into which it may bring their boys. The terrorism big boys exercise over little ones is scarcely greater than that which schoolmasters exercise over parents, by reason of a fear of the consequences to the boys concerned. Sir William Harcourt is rendering a great service to English school boys by giving the prominence he does to the fatal case of bullying at King's College, and thereby causing an act of justice to be done to parents of every grade. We do not imply that King's College is worse than other schools; but there, and elsewhere, has existed a lack of discipline in the intervals of class. The decision arrived at by the governors of King's College, that for the future safety of the boys the masters are to keep watch in rotation in the intervals of class, implies that their system has been defective in this particular. Indeed, it virtually admits the existence of the bullying complained of in their school, or of something equally objectionable. On the particular case in question which Sir William Harcourt has directed shall be inquired into by the Public Prosecutor, it would not be fitting to express an opinion. If this sad death convinces school authorities that boys cannot be let loose from class, in the absence of adequate supervision, without risk of injury to each other, and danger to the reputation of their school, and, if an injury should prove fatal, that they cannot hope to escape henceforth, any more than King's College has, one of the gravest charges that can be brought against a public body or an individual—the inquiry instituted by the Home Secretary will not be in vain. Whenever death takes place at a public school, either from injury or from disease, the law should provide a public inquiry. In the past there has been too much hushing up of such things; hence the prominence we have given in our columns to all matters concerning the welfare of the English school boy. Now that the Secretary of State has taken up his cause, he may hope for a happier future.

THE PRELIMINARY SCIENTIFIC M.B. EXAMINATION.

THE revised regulations for the Preliminary Scientific Examination, which will be found elsewhere, will, we fear, cause some disappointment. The concession that has been made by the Senate to the thrice-repeated demand of Convocation for a half-yearly examination is deprived of some of its grace by the withholding from the candidate who appears in January the chance of obtaining distinction. The Senate, in following what can only be supposed to be the recommendation of the examiners in this matter, has created a precedent for which there is little, if any, justification. To be logical, it ought forthwith to remove the Honours list from the January matriculation, for in what other respects does this Preliminary Scientific Examination differ in regard to medical degrees? Doubtless the intention is to encourage at least one year's study to intending candidates in Honours, and to make that year conterminous with the academical sessions. But as a matter of fact, there will be few youths so well prepared in the subjects of the Pass Examination as to present themselves for the Preliminary Scientific Examination within at least twelve months of passing matriculation, unless they avail themselves of the option given them to take up one or two subjects at a time. We are glad to see that Convocation has referred to its Annual Committee the question whether candidates who fail in one subject should be allowed to come up for examination in that subject only on a subsequent occasion. This would be most applicable to such an examination as the Preliminary Scientific, in which each of the three subjects of the Pass Examination is made to cover so wide an area. It must be confessed that the requirements of the examination have been placed very high. The subject of general biology, for example, includes a range of study that by itself would require prolonged and patient work, comprising a knowledge of animal and vegetable anatomy and histology, which there is at present little opportunity of obtaining. In the face of the extended requirements of the University of London, it is time that a serious effort be made to form science faculties and schools, which should have the sole responsibility of training youths in these preliminary subjects, and that no *medical* instruction be allowed to commence until this scientific study be accomplished. For all that, we are far from thinking that it would not have been both politic and

fair if the University of London had taken the opportunity to demand a little less science from those who wish to graduate in its medical faculty.

DISINFECTION AND DISINFECTANTS.

A COMMITTEE of the American Public Health Association have issued a preliminary report on the subject of Disinfection and Disinfectants, and the views expressed on the subject are eminently sound. It is explained at the onset that disinfection necessitates the actual destruction of any specific infectious material which gives rise to infectious diseases, and that the destruction must not be partial, but complete, if true disinfection is to be obtained. Popularly, the term disinfection is used in a much broader sense, and mere deodorisers and antiseptics are styled disinfectants, the result being much misapprehension and failure; for many such agents are entirely without value for the destruction of disease germs. This applies, for example, to the valuable antiseptic sulphate of iron or copperas. Antiseptics, however, exercise a restraining influence upon the development of disease germs, and hence they have a proper place amongst the agents to be used for certain purposes when epidemic diseases are prevalent. Many so-called disinfectants now in the market are mere deodorisers, and are quite valueless for their professed purpose. Chloride of lime is held by the Association to be entitled to the first place for disinfecting excreta; it is both trustworthy and rapid in its action. A solution of corrosive sublimate and permanganate of potash in soft water, in the proportion of two drachms of each salt to the gallon, is placed next, as being really effective, but slower in its action. Liquor sodæ chlorinatæ is also referred to, but it is dearer than chloride of lime, and has no special advantages over it. For clothing and bedding which cannot be washed, a temperature of 230° F. is recommended as sufficient for the destruction of all known disease germs which do not form spores. Super-heated steam under pressure is, however, a safer method to rely on, and, as stated in the memorandum, a less temperature of this agent probably suffices to effect the object than is the case with a dry heat. The report contains useful hints as to the quantities of the agents to be used, and as to the methods of their employment.

THE PREVENTION OF BLINDNESS.

A DEPUTATION from the Ophthalmological Society of the United Kingdom, consisting of Sir Wm. Bowman, Mr. Jonathan Hutchinson, Mr. John Tweedy, Drs. M'Keown, Brailey, and Abercrombie, was received last week by Mr. Russell, M.P., Parliamentary Secretary to the Local Government Board, and by the Registrar-General; Dr. Buchanan was also present. It will be remembered that an interchange of views has for some time past been going on between the Ophthalmological Society and the Local Government Board as to the best means of making the public aware of the danger attendant upon inflammation of the eyes in infancy. Some months ago, as an answer to some propositions made by the Ophthalmological Society to the Local Government Board, the Registrar-General argued that the increased expenditure necessary for carrying out the proposals of the Society would prove an effectual barrier. At the deputation it was urged that the public should be instructed through the medium of the Poor-law organisation and the registrars of births, and it was pointed out how this could be done by the employment of printed forms, which should be given, along with the papers for vaccination, to the individuals registering births. Though we should have been better pleased with a more forcible mode of bringing home the facts to the minds of parents, yet it must be admitted that the plan above suggested will probably be attended with much future benefit to the community if it be adopted, as seems not unlikely, by the Local Government Board. The benefit to be derived from such measures in preventive medicine may be expected to increase as years go by, for with the circulation of printed forms drawing attention to the perils of ophthalmia neonatorum there must go on an ever-widening dissemination of knowledge.

THE THAMES SEWAGE COMMISSION.

IT will be remembered that the Metropolitan Sewage Discharge Commission, appointed to inquire into the foul condition of the tidal portion of the Thames, divided their report into two parts, separated from one another by a considerable interval of time. In the first part they proved by an overwhelming mass of evidence the existence of a great, dangerous, and increasing nuisance, by which the river was fouled throughout almost the whole of the tidal portion. In the second part, published after a second inquiry, they discussed possible remedies. The Commissioners received less assistance in the second part of their labours than in the first, because the Corporation of London backed out of the work they had commenced so vigorously. It seems now to be generally admitted that the whole of the London sewage must be carried down at any rate to Sea Reach, and that even then it must be purified before passing into the river. Sir Joseph Bazalgette's scheme for taking the sewage to Canvey Island, near Southend, seems to promise as well as, or better than, any other. The minutes of evidence taken in the second stage of the inquiry are now before us, and contain much valuable scientific matter and some good maps and plans. Many well-known inventors and promoters of sewage schemes were examined, among whom may be mentioned Mr. Melliss, Mr. Sillar, and Mr. Bailey Denton; and their evidence will assist many in the not very easy task of deciding among the competing schemes. For ourselves, we incline to the opinion that the most promising system is precipitation followed by irrigation. As to the present frantic efforts of the Metropolitan Board of Works to remedy the mischief they have caused, they can only be described as absurd.

MEDICAL EDUCATION IN BOMBAY.

WHEN the Grant Medical College was opened in Bombay in 1845 the number of students was ten. After some fluctuations it was as low as fifteen in 1864-65, after which it rose again to forty-four or forty-five in 1873, and the average for the first twenty-eight years, during which period the students had not to pay anything for their education, was about twenty-five. Since that time, however, the number of students has steadily and rapidly increased, until it has reached three hundred, including the female class. The work of the hospital has also increased, and addition has since been made to that building, but not to the College. Further, there has not been any appreciable increase in the staff of teachers or in the hospital staff; the classes under each professor or teacher therefore are, and must necessarily be, so large and unwieldy that it must be impossible for the students to receive the benefit of the teaching as well as when the classes were small. This inconvenience cannot be got rid of by merely enlarging the present college premises. The teaching staff requires to be doubled along with the accommodation, and it has been suggested that the best and the most effectual way to give the much needed relief is not to have duplicate classes and teachers in one and the same college or building, but to have another college or medical school built in connexion with another hospital. The proposal seems a good one, and it is to be hoped that the Government will give it a careful and deliberate consideration. The Grant Medical College with its surrounding

hospitals and the European General Hospital could still be conducted on the old system. But with this yearly increasing number of students, one medical college with one hospital for clinical and other teaching is not enough, and more than one such institution may well be considered absolutely necessary.

PROFESSOR OGSTON'S VISIT TO THE SOUDAN.

LAST week Dr. Ogston, the Professor of Surgery in the University of Aberdeen, who has just returned from the Soudan, where he went with a view "to increase his efficiency in teaching and to increase his own personal information," delivered a lecture to the students on some points of interest in connexion with his short stay at Sawakin. After a brief notice of the very inadequate provision made for the wounded on the field of battle in former wars, he gave an account of the organisation and working of the bearer companies under the present system, of the mode of transport to the field hospital, and of the arrangements there made for the prompt and efficient treatment of the cases as they were brought in. We have but one objection to this description as applied to the war in the Soudan—that it describes the medical officers and men of the Medical Staff Corps as non-combatants, who "under the shelter of the Geneva Cross were recognised not only as non-combatants, but as having every claim to neutrality and protection." However true this may be in the case of war between civilised nations, it certainly is not applicable to such wars as that in the Soudan or in Zululand, and we regret that Professor Ogston did not point out this, as it greatly enhances the value of the services rendered by the medical department of the army in this campaign that they have been performed under such conditions of difficulty and personal danger. The Professor enlivened his lecture by two ghastly tales of the war, not from his personal observation, but which he had "on the best authority." He concluded by stating that "he felt quite confident that the amount of interesting matter that passed under his eyes in the short time he had been away would result in a great personal benefit to him; and it would be his best endeavour that, so far as was possible, the usefulness of what he had acquired should be extended to his students at the proper time." We cannot but regret that Professor Ogston did not communicate the result of his observations on the working of the medical service, on the condition of the hospitals, the treatment of the wounded, and the general impression he received as a professional onlooker, rather than deliver a lecture which might have been as easily got up without the trouble of going to the Soudan, and which seems to have been more of a type suited to the general public than for the information of his professional brethren or of the aspirants for admission into the medical profession.

THE URINE IN OSSEOUS LESIONS.

THE condition of the urine in osseous lesions has been studied by M. Verchère, who has formulated the following propositions (*La France Médicale*, May 7th). The facts have been arranged into two divisions according as the lesion is traumatic or inflammatory. The traumatic class is further subdivided into three groups. In the first group the osseous fractures were produced by insignificant causes, and examination of the urine showed that the discharge of phosphoric acid was much above the normal; consolidation of the fracture was not hindered by this excess of phosphates. The second group is composed of cases of fracture in which union was retarded; in these there was polyuria. In the third group there was delayed union with phosphaturia, which preceded the fracture and appeared to cause it. In inflammatory osseous lesions phosphaturia is the sign of a peculiar state of the system.

THE AFTER-CARE ASSOCIATION FOR THE CONVALESCENT INSANE POOR.

THE Rev. Henry Hawkins, chaplain to the Asylum at Colney Hatch, has done us the honour, in his "Plea for Convalescent Homes in connexion with Asylums for the Insane Poor," to quote the few words we wrote in support of an important project to which we are glad to observe that public attention is at last being called, and that, too, in a practical form. On Tuesday a bazaar was opened at the Town Hall, Kensington, by the After-care Association for the Insane Poor, and by its means a fair beginning of support was entered upon. The bazaar was to have been declared open by the much-esteemed Lord Shaftesbury, but unfortunately at the last moment the state of his lordship's health prevented him from being present. In his absence the Vicar of Kensington, the Hon. and Rev. E. Carr Glyn, officiated as chairman, and in a short but effective speech inaugurated the proceedings. Mr. Hawkins described with much care the intentions and objects of the Association, and Drs. Richardson, Hack Tuke, Savage, Norman Kerr, and others supported his earnest plea. If the Association succeeds in its efforts, we shall hope before long to see a series of new institutions springing up to perform two distinct philanthropic purposes—to afford a temporary resting-place for the poor on leaving the asylum, and a home to which they can from time to time return for friendly sympathy and wise direction.

THE LONDON TEMPERANCE HOSPITAL.

ON Saturday last a grand national bazaar in aid of the funds of the London Temperance Hospital was opened in the Floral Hall by her Grace the Duchess of Westminster. The special object of the bazaar is to raise a sum of about £8000, which is needed to defray the cost of the new wing of the hospital, which is now nearly completed. Up to the present time the hospital has consisted of three wards, with a total of fifty-two beds. The new wing includes five more wards, with accommodation for nearly seventy patients, so that the total number of beds will be raised to 120. One gentleman, who desires to be known only as an anonymous donor, has given no less than £5000 to the building fund, and with such an example of liberality before them it is hoped that the friends and supporters of the institution will clear off the outstanding debt upon the new buildings. The Duke of Westminster on Saturday handed a cheque for £400 to the chairman of the Bazaar Committee, and a further sum of £1100 was taken at the stalls during the afternoon. The stalls are picturesquely arranged to represent a mediæval London street, and are liberally and handsomely furnished. The bazaar will continue open every day until and including Whit Tuesday.

IMITATIONS OF ORGANIC TISSUES.

SENOR GARCIA DIAZ has exhibited to the Athenæum of Madrid some remarkable experiments in which he has been engaged for the last two years on the artificial production of imitations of organic tissues. He has invented an apparatus which he calls the "mechanical morphogene," which consists of a hollow cylinder containing a piston for compressing objects at the base. The substance employed is a mixture of sulphate of lime and oil. With this apparatus he has produced epithelial, fibro-cellular, and alveolar tissue. According to the time occupied in the descent of the piston, the nature of its inferior surface, and the proportion of oil in the mixture, different organic forms are obtained. In a second series of experiments Señor Garcia Diaz made use of hollow bodies which, on being compressed, showed perforations in the walls, and were by various other manipulations caused to assume an alveolar texture. Round cells

were also obtained by mechanical means. Polygonal cells required great pressure, as may be supposed from the positions they occupy in the human organism. He has also constructed a more elaborate apparatus, called the "pneumatic morphogene," with which microscopical preparations can be produced. In this apparatus pressure, heat, and inflation of air are combined in order to mould the outlines of the principal tissues. Varnish, from its adhering to glass, is the best substance for these investigations. With this, by means of a good deal of delicate manipulation, the most important organic tissues can be imitated, showing the author that their structure depends merely on physical conditions, no "mysterious living principle" being necessary for their production any more than for that of organic chemical substances, such as urea, which have long been shown to be capable of being built up synthetically by chemists.

DEATH OF PROFESSOR HENLE.

THE death is announced of Professor Jacob Henle of Göttingen. He was one of the last of the famous German school of scientists which flourished at the beginning of the present century, and was a most active worker all his life. When prosector and *privat docent* at Berlin, he published, in 1840, some pathological memoirs on Miasm and Contagion, Nervous Sympathy, the Course of Periodicity of Disease and Fever, subjects afterwards embodied in his more ambitious work—"Handbuch der rationellen Pathologie" (1846-1853), written when Professor of Pathology and Physiology at Heildelberg. In this work he foreshadows the notion of fungi playing a part in the etiology of disease. But it is in anatomy that Henle will be remembered best. His contribution to the knowledge of the structure of the kidneys completed the work of Bowman and Müller; and his famous treatise on Human Anatomy, commenced in 1855, has a world-wide reputation. In 1882 the celebration of the jubilee of his doctorate was signalised by the publication of a volume containing anatomical and embryological memoirs by many of his old pupils, amongst whom may be named Aeby, Bardeleben, Du Bois Reymond, V. Dusch, Flemming, Friedreich, Kölliker, Kühne, Langhaus, Merkel, Waldeyer, and Westphal. In the same year Henle himself contributed to the *Archiv für Microscop. Anatomie* a memoir of the life-work of Theodore Schwann.

THE CONTAGIOUSNESS OF PHTHISIS.

IN a paper recently read before the College of Physicians of Philadelphia, Dr. W. H. Webb strongly supported the doctrine that phthisis is contagious, and brought to his aid many marked examples in literature, and some personally known to him. He described an apparatus which he had devised for filtering air, with a view to discover whether tubercle bacilli could be found in the atmosphere of places of public resort. The trap consisted of a brass cylinder containing perforated steel discs plugged by thin layers of pyroxylin; the cylinder was connected at one end with a pump, and at the other with a funnel, which was placed over the ventilating flue of the place examined. Specimens of the pyroxylin obtained in these experiments were sent to Drs. Shakespeare and Morris Longstreth for examination. Dr. Shakespeare was only able to detect one unmistakable tubercle bacillus in the four specimens sent him; but Dr. Longstreth was more successful, finding the bacilli in four out of six slides prepared from one of the specimens. Considerable difficulty was, however, met with in the research, owing to the nature of the material and the necessarily great admixture with foreign matters. Scanty as this evidence is, it does, in Dr. Webb's view, sufficiently support his thesis, and he urges that the tubercle bacillus is an undoubted fact, and that clinical observation conclusively proves that healthy individuals living in an atmosphere contaminated by the phthisical will contract the disease. He accused the "non-contagionists" of having "wilfully, unhesitatingly, and without warrant, perverted the language, even absolutely falsifying the statements, of authors they quote in support of their cause."

THE FORTHCOMING EXHIBITION OF INTRACRANIAL TUMOURS.

THE Council of the Pathological Society have announced an exhibition of and discussion on intracranial tumours, to take place at the first meeting of the Society in February, 1886. The announcement of this intention at so early a date is doubtless made with the object of giving sufficient time and notice to intending exhibitors to get their material into order. The term "intracranial tumours" is to include cysts and gummata. It is hoped that the following features will receive consideration:—The nature of the tumours, their situation, size, probable duration, and age at which they occur; the number of them present in the brain; and the presence and situation of secondary tumours. It is desired that the discussion may be illustrated by as many specimens as possible, as well as by pictures and diagrams. In our opinion the exhibition and discussion in question are peculiarly happy suggestions, and we congratulate the Council of the Society on conceiving so fortunate a scheme.

THE DETENTION OF LUNATICS.

A REPLY has been received from the Local Government Board by the Mile-end Old Town Board of Guardians to a letter suggesting an extension of the provisions as to the detention of alleged lunatics in certain cases, proposed to be inserted in the Lunacy Laws Amendment Bill now before Parliament. The Lord Chancellor has, the Board states, with a view to its insertion in the Bill, given notice of a clause providing that where a constable, relieving officer, or overseer has knowledge that there is within the limits of his jurisdiction a person alleged to be a lunatic, for whose care and maintenance relief appears to be requisite, he may remove the alleged lunatic to the workhouse of the union; and the master of the workhouse shall receive him therein; but no person shall be so detained for more than forty-eight hours, unless in the meantime the provisions of the Act relating to the detention of lunatics in workhouses have been complied with.

ENORMOUS CALCULUS.

WE understand that a calculus far exceeding in size that mentioned in THE LANCET of the 2nd inst. as having been extracted by Sir Henry Thompson has recently been removed from the human bladder by Mr. Rivington at the London Hospital. The calculus weighed (avoirdupois) 1 lb. 9 oz. 2 dr. when removed. It weighs, now that it has been put together and in dry state with hollow centre, owing to absence of nucleus and débris, 1 lb. 6½ oz. (avoirdupois). The dimensions are thirteen inches in circumference lengthwise, and ten inches transversely.

LICKING ADHESIVE STAMPS AND ENVELOPES.

THIS is a perilous practice, against which the public needs to be put on its guard. We have seen bad consequences ensue from the habit, which is a very common one. Those who are frequently thus moistening the gum on adhesive surfaces suffer from local irritation, sore tongues, and the like, while every now and again we hear of special propagation of disease by the habit. A curious illustration of the way in which disease may be communicated was recently

brought under our notice. An envelope received from a person who habitually took large quantities of morphia hypodermically was reclosed by the person who opened it by licking the adhesive surface, with the result of making him violently sick. The mere touch of the tongue of the taker of morphia had rendered the gum intensely nauseous. If this could happen, obviously there must be grave peril of the transmission of disease by such means. It is not likely that many persons would even incidentally re close an envelope in this way; but the incident may serve to show how desirable it is not to run the risk of even taking in the impurities of new adhesive matters from stamps and envelopes. It is very easy to avoid the practice The danger only needs to be pointed out.

ROYAL COLLEGE OF SURGEONS IN IRELAND.

AN election for a member of Council, in the room of Dr. Mapother, resigned, took place on Tuesday, the 19th inst., when Dr. Edward Hamilton, Professor of Surgery in the Medical School of the College, was elected without opposition. The annual elections for President, Vice-President, Secretary, and Council will be held on Monday, June 1st, when Dr. Cameron will be advanced to the Presidency, and most probably Mr. William Stokes will be elected Vice-President.

CHOLERA "VACCINATION" IN ALCIRA.

IN a letter in a Spanish medical journal from Alcira, the writer says that he has just proved the existence of Koch's comma bacilli in the stools of a case he has seen. He mentions also that the only two boys in an institution in that place who were not "vaccinated" by Dr. Ferrán at his first visit have been attacked by cholera, and that this fact has produced such a profound sensation in the town that all the inhabitants have the greatest faith in Ferrán's preventive. The same journal states that Dr. Ferrán has been dismissed from his post in charge of the hospice at Tortosa by the municipal authorities, who probably think that his time is so fully occupied in other ways that he cannot devote the attention to the local infirmary that is required, and that could be given by a less eminent medical man.

THE SALVATION ARMY AND LUNACY.

THERE has been a slight skirmish or interchange of shots between an outpost of the Salvation Army and a medical man on the subject of the proceedings of the army and lunacy. Surely "General" Booth does not need to be told that there is such a thing as religious mania, and that the sort of excitement his propaganda produces is likely to act injuriously on hysterical females and excitable males. Emotional perturbation is always mischievous. The weak feel it more than the strong. Every description of "revival" produces a crop of insanity. It is to unstable and excitable nervous centres this sort of enthusiasm appeals, and out of the multitude affected there must be some who break down.

EXTIRPATION OF THE GALL-BLADDER.

AT the Brussels Academy of Medicine Dr. Hyernaux reported a case of hepatic colic caused by gall-stones, in which Dr. Thiriar had extirpated the gall-bladder. Although the patient recovered, the majority of the speakers considered the operation undesirable and unnecessary. They thought that it ought to be borne in mind that this affection sometimes underwent a spontaneous cure, and they advised that it should be treated by a carefully regulated dietary and medicine, and that recourse should not be had to an operation fraught with such serious risk.

MEDICAL LEGISLATION.

THERE is reason to believe that the Government have some intention of introducing a Medical Bill after Whitsuntide.

THE CHOLERA.

WE are glad to be able to give an emphatic denial to the report that cholera has broken out in Durham. Not a single case has occurred in that city.

THE Select Committee appointed to consider the law relating to the control over telephone, telegraph, and other wires, in their report which has just been issued state that they, having heard evidence from the Post Office, the telephone companies, the various local authorities of the metropolis, the corporations of some of the leading provincial towns, and private owners and occupiers, have come to the conclusion that the risk of danger to the public from overhead wires has been very greatly exaggerated. At the same time they are of opinion that the probable development of the telephonic system makes it desirable that there should be some legislation on the subject.

PROFESSOR BURDON SANDERSON, on the 15th inst., delivered a lecture at the Royal Institution on "Cholera, its Causes and Prevention"; in the course of which he gave a short history of the manner in which at various periods the disease had spread, and stated that those who resided in the west and north of London need have no fear as to cholera if it fixed itself again in the east of the metropolis. He, however, predicted that if the disease intended to attack London this year it would long ago have been on the march.

AT a recent meeting of the Ballinrobe Dispensary Committee, it was stated that in the absence of the local medical man the porter of the workhouse attends the dispensary, dispenses medicine, extracts teeth, and vaccinates children. To make things worse, he is an illiterate man, unable even to read a label. After a long discussion, it was resolved that the porter be dismissed, and that the Local Government Board be called upon to hold a sworn inquiry into the circumstances.

A SPECIAL prize has been awarded by the Academy of Medicine of Paris to Dr. Murrell, Lecturer on Pharmacology and Therapeutics at the Westminster Hospital, for his introduction of nitro-glycerine as a remedy for angina pectoris and allied diseases. A sum of 500 francs has been awarded to Dr. Henri Huchard of Paris for his work entitled "Les Angines de Poitrine."

THE district of Pensa, in Russia, has decided to grant a pension to the families of its medical officers who have died from cholera. This is without reference to their length of service. The sum of 900 roubles is to be granted yearly to the families of qualified medical officers, and 180 roubles to those of members of the subordinate medical service.

DR. WYCHERLY, High Sheriff for the city of Cork, is to receive the honour of knighthood, in appreciation of the part he took in the reception of the Prince and Princess of Wales. Dr. Banks also is spoken of as likely to be the recipient of a baronetcy.

DR. FREDERICK TAYLOR having been elected Physician to Guy's Hospital, Dr. W. Hale White has been appointed Assistant-Physician to that institution.

THE Birmingham Hospital Saturday collection had reached the unprecedented amount of £6325 0s. 7*d.* up to the close of bank hours last Monday, showing an increase of £398 on last year's total.

DR. PETROV, Professor of Pathological Anatomy in the University of Kasan, Russia, has resigned, and the Faculty has nominated the prosector, Dr. N. Ljubimov, as his successor.

Two fatal cases of cholera are stated to have occurred at Marseilles.

CHOLERA CONFERENCE AT BERLIN.

(*Concluded from p. 913.*)

THE fourth sitting, on May 7th, was opened by a demonstration by Professor Koch of some inoculations with Brieger's bacillus, and of pure cultures of comma bacilli obtained from the intestines of guinea-pigs previously shown. He then resumed the debate, which he said had simplified comprehension of the subject, for the points of difference between himself and Professor von Pettenkofer were diminished by the latter's admission of the fact of individual immunity and the influence of traffic in spreading the disease. Nor did he himself deny that humidity of soil has some influence, especially in the surface layers, where organic matter decomposes; but this condition is only one, and not the foremost, of many factors. Local immunity is not explained by it solely, being due to very complex conditions, as exemplified in the case of Lyons. Mooltan, a town of the desert, is almost the sole place in India that enjoys immunity. He gave further instances of the risk of traffic with the cholera sick, and stated that the dangers of ship traffic do not depend on the extent of an epidemic on individual ships, but on the number of vessels attacked by cholera, and this is comparatively large. Turning to the third point proposed for discussion, he said there was no authentic fact of the atmospheric transmission of cholera. It might occur exceptionally, but as a rule the atmosphere only influences a cholera epidemic by the fact that the virus retains its power for a longer period in moist air, and speedily perishes in dry air. The soil may influence the spread of cholera by its physical property. It had been said that a clay soil was to a certain extent protective, but he cited instances showing that this was not invariably the case. He showed by various examples from India, Egypt, Paris, Genoa, and Naples that the subsoil water is no index of the diffusion of cholera; it is the various kinds of putrefaction in the superficial layers that are the important conditions in soil. Of the three factors, *x*, *y*, and *z*, which Professor von Pettenkofer declared some years ago to be necessary for an epidemic, was it the *x* or the *y* which is represented by the bacillus? Drinking water is of some importance; a certain percentage of individuals are protected from cholera by pure water, as was seen by a reference to plans and tables from Calcutta (especially Fort William) and from Bombay, Madras, Nagpore, Pondicherry, Alexandria, and Cairo.

Dr. GÜNTHER said that in Saxony during the epidemics of 1865, 1866, and 1873 the mortality among medical men, nurses, and gravediggers was not higher than the mean of the whole population; there was in 1865 and 1866 a higher rate amongst those who washed the linen of cholera subjects, but not in 1873. He gave examples from Elsterberg and the Gerbergasse at Dresden as apparently in favour of the protective nature of a clay soil. In Saxony the height of the epidemic of 1873 corresponded with the acme of the ground temperature at a depth of one metre.

Professor von PETTENKOFER read a paper on the Drinking Water Theory and the Immunity from Cholera of Fort William in Calcutta. He pointed out that according to Dr. Mouat the disappearance of cholera from Fort William was brought about not merely by the new water-supply, but by other extensive sanitary measures, including a thorough sanitation of the soil. The same obtained in other places, where an improved supply of drinking water has been regarded as the cause of the disappearance of cholera, for more careful scrutiny showed that the observation had been defective, or that many other hygienic measures had co-operated. Pure water *per se* was not a specific prophylactic against cholera, and he deemed it essential to assert this because people have been content to believe that with the introduction of pure water enough had been done, and therefore to neglect the more important matter of sanitation of the soil.

The final sitting took place on May 8th, when the debate on points 2 and 3 was resumed by Professor von PETTENKOFER, who said that when he proposed to regard the subsoil water as the index of cholera, he had not meant especially the rise and fall of the subsoil water, but only the variations indicated by the hydrometer in the humidity of the soil overlying the water. It was only such variations that were of etiological importance, and only those wells could be employed for measurement which did not change their level from other causes—e.g., not those depending solely on the levels of the nearest river. He postponed his reply to Professor Koch's criticisms to another opportunity, as he had not at hand data referring to many of them, and time would not permit of his entering upon them all.

Dr. B. FRAENKEL said that, since it had been clearly shown that the winter latency of an epidemic could be explained by the known vital tenacity of cultures of the comma bacillus, there only remained of the reasons advanced by Professor von Pettenkofer against the view that the bacillus is the cause of cholera this—viz., that the local and periodical characters of cholera epidemics are not to be explained by the vital peculiarities of the bacillus. But, once admit the bacillus to be the cause of cholera, and this difficulty disappeared. It traces the origin of an epidemic to something external to the human body, with certain special conditions, local and periodical, in addition. He asked Professor von Pettenkofer if, in what is known of such conditions, there are facts which preclude the view of the comma bacillus being the cause of the disease.

Professor von PETTENKOFER said that such conditions depend upon (1) the physical character of the soil, permeability; (2) its humidity and variations in this; (3) its impregnation with organic matter. He would willingly recognise the comma bacillus, and any bacillus considered by bacteriology to be the cause of cholera, as the special cholera virus, and abandon his doubts, if it were proved that the micro-organism answered to epidemiological facts upon local and periodical conditions. In that case it must, like the malarial virus, have some relation to the soil.

Professor VIRCHOW said that when Professor von Pettenkofer commenced his studies on cholera the idea was in vogue at Munich that a fungus was the cause of cholera; but the notion was corrected by Thiersch's experiments on white mice; and it was thought that the virus was formed later in the dejecta. Although these experiments may have been erroneous, yet Professor von Pettenkofer had not given up the notion of this late development of the cholera germ. In the inquiry into the various conditions in which fæcal matters are found, the soil very naturally occupies the foreground; and from this point of view Professor von Pettenkofer's labours had thrown much light. But whilst fully acknowledging their merit, Professor Virchow could not understand their exclusive standpoint. Why should the material that causes cholera, and that is present in the soil, be not also capable of passing into drinking water? Theoretically there was nothing opposed to that. Practically the question is reduced to the somewhat rough-and-ready one as to whether an improved water-supply can limit cholera epidemics; but there are many kinds of impurity in water. In reference to Professor von Pettenkofer's objection to the experience gained on this head—e.g., the facts Professor Koch related about Fort William that other improvements in sanitation occurred at the same time,—it must still be asked whether these other changes were also of value. In introducing a good supply of water, drainage was also improved, and both had undoubtedly a favourable effect. It is with cholera as with typhoid. Thus at Halle a sudden and permanent reduction in the frequency of typhoid followed the introduction of drainage, and buildings supplied with good drinking water have remained free from the disease. Yet it by no means follows that typhoid and cholera have nothing to do with the soil. It has been proved that the comma bacillus can exist in water; and were another fungus alleged to be the cause of cholera, the same must be proved of it. By subsoil water he did not understand, with Professor von Pettenkofer, the water that

soaks through from the surface. Subsoil water is an entity, and it is impossible to split it into different kinds. He had always maintained that fungi got their nutriment only in the uppermost layers of the soil, and this was important, since every kind of impurity could not be drained off. Dr. Babes had shown that in the struggle for existence the comma bacillus is speedily overborne by putrefractive bacteria; and, therefore, there must needs be varied and special circumstances for it to flourish, and further researches upon water on linen, &c., were required to elucidate tnem. Nor could personal predisposition to cholera be disputed, and in this connexion it must be remembered that the attack of cholera usually occurs during digestion, when living organisms might be passed into the bowel without being long in contact with the gastric juice. The atmosphere must also play some part, as in the diffusion of particles in the unpacking of linen and their conveyance to the mouth.

Professor KOCH reserved his arguments against Professor von Pettenkofer's views to another opportunity.

The fourth point was then discussed—viz., on the practical measures for attacking cholera. These were summarised by Professor KOCH as follows:—1. Measures for the direct destruction of the infective material, disinfection of dejecta, destruction or disinfection of linen, &c. 2. Sanitary works for carrying the virus away, drainage, good water-supply. 3. Competent supervision of communities for the speedy diagnosis of the earliest cases, in order to nip the epidemic in the bud; the sick must be isolated or so guarded as to prevent contagion. Infected houses to be vacated by the healthy, who must be supervised. 4. The instruction of the public so as to allay their fears, and make them aware of the dangers of uncooked food, unboiled well water, with particular warning against the use of infected linen.

Dr. GÜNTHER said one difficulty was to determine what water was dangerous and in what circumstances wells should be closed.

Professor KOCH said that no general rule could be laid down; but it was essential not only to ascertain the chemical characters of the water, but to determine how many and what kind of micro-organisms are present in it.

Dr. GÜNTHER alluded to the supervision of railway travellers, its difficulties and impossibilities, and its doubtful utility.

Professor KOCH said the regulations in this regard must be dictated in the humanitarian sense, as needed for the protection of the sick and in the interest of his companions.

Dr. S. NEUMANN pointed out that premonitory diarrhœa is excluded from control, and must yet be regarded as cholera.

Professor KOCH agreed, provided that comma bacilli were present in the dejecta.

Dr. KÖHLER, in view of the strict control over ship traffic, would like to support a practicable revision of railway traffic without disturbing travellers, so that the charge may not be brought against officials that nothing is done for the protection of people.

Dr. MEHLHAUSEN urged the importance of cleansing the water-courses, especially the smaller ones; and Dr. EULENBERG illustrated this point by instances of the spread of cholera through the Salzbach at Wiesbaden and the Schwarzbach at Liegnitz.

Professor VIRCHOW called attention to Bacon's portable disinfecting apparatus, and mentioned that the Berlin Town Council were about to erect special disinfecting establishments. Isolation of the sick was necessary, but a land quarantine would be impracticable with our complicated travelling system.

Professor KOCH laid stress on the disinfecting property of drying. His observation that the comma bacillus is rapidly killed by drying has been confirmed on all sides. Where carbolic acid and disinfection by steam were inapplicable, the virus could be killed by drying—e. g., in the case of furniture and dwellings. In many cases fresh lime-washing of walls would suffice. In reply to Dr. Pistor, he said that corrosive sublimate destroys the bacilli, but he did not recommend it as a disinfectant on a large scale.

Professor von PETTENKOFER stated that measures of isolation, disinfection, &c., did not determine the mildness or severity of an epidemic; but he admitted that measures must be taken to calm the public mind.

Dr. KERSANDT warned against *laissez-faire* on the part of officials on the outbreak of an epidemic. The State interest demanded that the public should feel that protective measures were taken, for that was the best way of calming them; and the State could do much to protect against cholera invasion. The sick must be isolated as far as possible, the water-supply supervised, and no measures which experience proves of value be neglected.

Professor VIRCHOW said that in Berlin in 1848-9 the view was held, and acted upon, that cholera was not contagious. The mortality was 12 per 1000, the highest experienced in Berlin. More was to be gained as guiding to what was to be done by the experience obtained from the individual case than the observation of the epidemic as a whole.

Professor MEHLHAUSEN spoke of precautions in the interment of cholera subjects, and, no member offering any further remarks, the conference was brought to a close by Professor Virchow thanking the foreign members for their attendance and their contributions, which was acknowledged by Professor von Pettenkofer, who said they had a common aim, and could meet to pursue it although their opinions might differ.

ASSOCIATION OF FELLOWS OF THE ROYAL COLLEGE OF SURGEONS.

A MEETING of this Association was held on Wednesday last, at 5.30 P.M., in the rooms of the Medical Society, Chandos-street, W. The chair was taken by Mr. George D. Pollock, and the meeting was well attended. The chairman in opening the proceedings said that the Committee of the Association had endeavoured to carry out the instructions intrusted to them. They had had one conference with a deputation of the Association of Members, at which the chief subject under consideration was the mode of election of members of Council. This question was patiently discussed on both sides, and the conclusions at which the Committee of the Association of Fellows had arrived were embodied in the resolutions which had been submitted by post to the members of the Association. Speaking of the deputation of Fellows from the Association to the Council of the College, Mr. Pollock said the deputation was fairly and kindly received, but the printed report which had been circulated showed how little was gained, by the conference with the Council of the Royal College of Surgeons. And although on the occasion of the conference he (Mr. Pollock) specially addressed the chairman of the sub-committee on the point that no Charter should be applied for without a further meeting between the Association of Fellows and the Council of the College, and had received the answer that this request should be carried out, yet the Council did not think it necessary to comply with that request or to treat it with any more courtesy than by a notice given to the secretaries of the Association that the Council had proceeded to the Home Secretary with a view of obtaining the new Charter. Having this state of affairs in view, the Committee of the Association had consulted together and had proposed to address a letter to the Home Secretary praying him not to approve the new Charter before the Fellows of the said College had represented their views to the Home Office, and before the President of the Association should have explained the objects which the Association had at heart.

A sub-committee for the purpose of drawing up the letter was nominated, and the letter was to read as follows:—"We beg to bring to your notice the following resolution, unanimously adopted at a meeting of the Committee of the Association of Fellows of the Royal College of Surgeons comprising at least one-fourth of the whole number, held on May 11th, 1885—viz., 'That a letter be addressed to the Secretary of State for the Home Department praying him not to approve of the amended Charter about to be applied for by the Council of the Royal College of Surgeons of England until the Fellows of the said College have had an opportunity of representing their views in the matter.' We are authorised on behalf of the Association to state that the views entertained by the Fellows of the College are in many important respects opposed to those held by a majority only of the Council, which consists of only twenty-four Fellows. In preferring this request, we would commend to your notice that we have good grounds for believing that no Charter will be acceptable to the body of Fellows and Members of the College which does not include the recommendations proposed by the Association of Fellows, but many of which have been rejected by the Council of the College. We beg

to enclose a copy of these recommendations with the replies of the Council." Signed by G. Pollock, A. Willett, J. Tweedy, and W. Bruce Clarke.

The meeting unanimously expressed its approval with the terms of the letter. The next business was the discussion of the following resolutions which had been drawn up by the Committee of the Association:—

1. That it is inexpedient for the Association of Fellows to unite with the Association of Members in its demand for representation. 2. That if, however, the Members should succeed in obtaining the right to elect members of Council, it is desirable that the existing rights of the Fellows should be adequately protected in the new Charter.

Some discussion took place on the nature and consequences of the conference between the Association of Fellows and that of Members. The secretary, Mr. Bruce Clarke, said that he had been in communication with Mr. Steele, the secretary of the Association of Members. The proposition "That the Fellows and Members (of the College) unitedly shall elect the Council, but no one shall sit on the Council unless he be a Fellow or a Member of ten years' standing," was the principal subject which the Committees of the two Associations had discussed. The last letter received from the secretary of the Association of Members asked what terms the Association of Fellows would be agreeable to accept. Mr. Alban Doran, Mr. Butlin, Mr. Gant, Mr. Barnes, and others spoke on the question, and the first resolution was moved and seconded, when

Mr. JOHN TWEEDY proposed as an amendment the following:—"That in the opinion of the Association of Fellows it would conduce to the welfare of the Royal College of Surgeons, and would tend to promote the interests of medical polity and education, if Members of the College were empowered to take part in the election of members of Council, provided, firstly, that no Member shall be eligible to vote until he has been such Member for a period of at least ten years; and, secondly, that the number of members of the Council elected by the Members of the College shall not exceed one-third of the whole Council." In proposing this amendment, Mr. Tweedy said that he had purposely abstained from conferring upon it with the other members of the Committee of the Association of Fellows. He confessed that, had the Members of the College never raised the question of direct representation on the Council, he should not have thought of claiming such representation for them. Small electoral bodies had a certain amount of convenience, and he considered that there was such a body in the order of Fellows of the College. Still, as we were brought face to face with a great question for reform, we ought not to shrink from it. It must be remembered that all these attempts at reform had come about us as the result of the general meeting of Fellows and Members held in March, 1884. Notwithstanding the representations made from all quarters to the Council of the College, this autocratic body had seen fit to reject all proposals and had simply increased its own autonomy. Speaking next of the rights of Fellows and Members respectively, Mr. Tweedy said that no doubt the President and others, his seniors, could remember the heartburnings that existed when the order of Fellows was created, and some would know as a matter of history the disgraceful circumstances under which the College originated. The old Corporation of Surgeons had been guilty of many acts of illegality, and parliamentary influence was brought to bear, happily without success, to condone these illegal acts. But though Parliament rejected these overtures, yet the part of courtly intrigue was well played, for George III. was prevailed upon to grant a Charter in which the Members of the College were entirely ignored. The Council was self-elective, and the Members of the College were left out of consideration altogether. After forty-three years of this disgraceful existence, the creation of the order of Fellows must be looked upon as a distinct advance, though it was a most arbitrary act, for the friends and relatives of members of the Council were made Fellows without any special claims. From that time to this nothing had ever been done for the Members, who were an increasing and intelligent body of men. They carry on the hard work of the medical profession; they were the ministers of surgical life. So that he thought that direct representation on the Council would not only be conducive to the welfare of the profession, but the Members of the College would feel that they were drawn to the College by bonds of interest and affection. And if these things came about, it seemed to him that the College of Surgeons would have a more brilliant career than it had ever had yet. He would limit the eligibility of the Members to those of ten years' standing, and this proposal would practically reduce the constituency of the Members to between three and five thousand, which would be composed of staid practitioners and men of mature intelligence. Feeling that their influence in the Council should be limited, he had introduced the final clause in his amendment.

Mr. ALBAN DORAN seconded this amendment, which he considered was based on sound principles. In moving the amendment, he thought Mr. Tweedy had shown himself to be a practical politician, for he faced matters as they were likely to turn out, and not as one should wish them to be.

Mr. OLIVER PEMBERTON accepted the amendment with a slight reservation to the effect that the Members should hardly be allowed to swamp the Fellows in the Council. He considered that the number of Members voting should not exceed the number of Fellows voting.

Mr. A. WILLETT also approved of the substance of the amendment, but regarded it rather as a rider or addition to the resolutions which had been submitted to the meeting. The letter read by the secretary from Mr. Steele showed that the Association of Members were willing to talk over the matter so that a common *modus vivendi* could be maintained between the two Associations.

Mr. JOHN TWEEDY said that he had made his proposition as an amendment on account of the wording of the first resolution.

Mr. WILLETT, Mr. BUTLIN, Mr. MACNAMARA, and others contended that there was really nothing in the proposed resolutions which could be construed as antagonistic to a mutual understanding between the Associations.

Mr. J. WICKHAM BARNES thought that a second interview should be had with the Association of Members before any details were arranged.

It was urged, however, that the amendment might be regarded as a basis on which the committees of the two Associations could meet and discuss.

Mr. POLLOCK suggested that the first resolution should be verbally altered.

Mr. R. DAVY said that he was horrified on reading the first resolution, which began in so unsympathetic a manner as "that it is inexpedient," &c. He believed in the old-fashioned proverb—"Vis unita fortior." It was not long ago, when danger threatened the College, that Mr. Trimmer, the secretary, had no hesitation in applying by letter to all Members. If Members were applied to in times of war, surely they had a right to be applied to in times of peace. His arguments were used in favour of a common platform, and the establishment of a common fellowship; and he thought the question was pretty much the same as that which had been fought out throughout the political world recently.

Mr. Willett and Mr. Tweedy then consulted, and the following amended resolution was put to the meeting and unanimously carried:—"That whilst it is inexpedient for the Association of Fellows to unite with the Association of Members in its demand for universal suffrage and for equal representation on the Council, yet, in the opinion of the Association of Fellows, it would conduce to the welfare of the Royal College of Surgeons, and would tend to promote the interests of medical polity and education, if Members of the College were empowered to take part in the election of members of Council, provided that no Member shall be eligible to vote until he have been such Member for a period of at least ten years."

After some discussion, it was moved by Mr. TWEEDY, and seconded by Mr. J. W. BARNES, that a copy of the resolution be forwarded to the Association of Members with a view of informing them of the policy adopted by the Association of Fellows as a basis on which the committees of the respective Associations might take conference. With such a policy, it was felt that the Associations might go to the Home Secretary, confident in their combined cause.

THE ceremony of laying the foundation-stone of the Northern Hospital, Winchmore-hill, for the reception of fever and small-pox cases above the pauper class, took place on the 16th inst. The building, which is in the modern style, is of brick, and consists of two storeys, with accommodation for 512 patients and the necessary officers and staff. The cost is estimated at £13,580.

SANITATION IN THE STRAITS SETTLEMENTS.

THE year 1884 was a healthy one in all the three Settlements. There was no epidemic of any kind, and the comparative freedom from contagious disease, even in sporadic forms, must be a subject of much congratulation to the various medical officers engaged in the institutions. The only cases of cholera, or choleraic diarrhœa, reported as having occurred in Singapore town took place in the Rochor district during December, and immediately following an unusually heavy rainfall. The persons seized occupied huts situated on the edge of the Kallang river, the water from which had been used for drinking purposes. Doubtless the heaviness of the fall had stirred up much organic débris from the sides and bed of the river, which had contaminated the water to a fatal degree. Four cases occurred in two days, all of which ended in death. The inhabitants were forbidden to drink from the river, town water was supplied to them, and the disease was at once arrested. It is a fact worthy of observation and beyond dispute, that the cases of cholera which now occur in Singapore do so almost always in a locality where town water has been found impossible or difficult to be procured. The drainage of the town generally is improving year by year, though in certain districts much remains to be done. There were admitted into the several civil hospitals in the Settlements 740 Europeans and 14,357 natives, which, together with 28 Europeans and 1030 natives who remained at the close of 1883, gives a total of 768 Europeans and 15,387 natives treated during the year. The number of vaccinations performed was 2341 at Singapore, 2436 at Penang, 3583 in Province Wellesley, and 2801 in Malacca. Comparing the mean temperature of the different stations, it is interesting to note that Singapore recorded the lowest temperature, Malacca next, then Penang, and lastly Province Wellesley; the variations were very slight, the difference between the highest (83°) and the lowest being only 1·9°. The highest temperature recorded during the year was 96·5° in Province Wellesley. At Singapore the total fall of rain during the year was 80·15 inches, against 71·13 inches in 1883; at Penang, 87·56 inches, against 87·74 inches; at Province Wellesley, 77·53 inches, against 81·73 inches; and at Malacca, 84·11 inches, being 7·08 less than that of the preceding year.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5767 births and 3487 deaths were registered during the week ending the 16th inst. The annual death-rate in these towns, which had been equal to 23·4, 21·1, and 20·2 per 1000 in the preceding three weeks, was last week 20·4. During the first six weeks of the current quarter the death-rate in these towns averaged 22·2 per 1000, against 23·3 in the corresponding periods of the nine years 1876-84. The lowest rates in these towns last week were 10·9 in Brighton, 14·2 in Bolton, 15·1 in Derby, and 15·5 in Bristol. The rates in the other towns ranged upwards to 25·0 in Sunderland, 27·7 in Manchester, 30·3 in Newcastle-upon-Tyne, and 33·4 in Preston. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 449 and 481 in the previous two weeks, declined again to 463 last week, and included 143 from measles, 126 from whooping-cough, 50 from small-pox, 45 from "fever" (principally enteric), 37 from scarlet fever, 33 from diphtheria, and 29 from diarrhœa. No death from any of these principal zymotic diseases was returned last week either in Norwich or in Derby, whereas they caused the highest death-rates in Sunderland, Blackburn, and Newcastle-upon-Tyne. The greatest mortality from measles occurred in Birkenhead, Manchester, and Newcastle-upon-Tyne; from whooping-cough in Plymouth, Oldham, and Blackburn; from scarlet fever in Cardiff and Sunderland; and from "fever" in Salford, Cardiff, Sunderland, and Plymouth. The 33 deaths from diphtheria in the twenty-eight towns included 21 in London and 2 in Brighton. Small-pox caused 62 deaths in London and its outer ring of suburban districts, exclusive of 30 deaths of London residents in the hospital ships and camp at Darenth. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had been 1282 and 1361 on the preceding two Saturdays, further rose to 1364 at the end of last week; the admissions, which had been 246, 354, and 315 in the previous three weeks, declined to 211 last week. The Highgate Small-pox Hospital contained 69 patients on Saturday last, 10 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had declined in the preceding five weeks from 512 to 287, were last week 291, and 60 below the corrected weekly average. The causes of 82, or 2·4 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Newcastle-upon-Tyne, Sunderland, Brighton, and in three other smaller towns. The largest proportions of uncertified deaths were registered in Halifax, Bristol, Sheffield, and Norwich.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had steadily declined in the preceding six weeks from 25·0 to 20·6, rose again to 23·4 in the week ending May 16th, and exceeded by 3·0 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 17·2 and 17·5 in Edinburgh and Leith, to 25·5 in Paisley and 29·7 in Glasgow. The 570 deaths in the eight towns included 24 which were referred to whooping-cough, 19 to measles, 19 to diarrhœa, 8 to "fever" (typhus, enteric, or simple), 5 to diphtheria, 4 to scarlet fever, and not one to small-pox; in all, 79 deaths resulted from these principal zymotic diseases, against 81, 64, and 55 in the three preceding weeks. These 79 deaths were equal to an annual rate of 3·2 per 1000, which was 0·3 above the mean rate from the same diseases in the twenty-eight English towns. The 24 fatal cases of whooping-cough showed a further decline of one from the numbers in recent weeks, and included 9 in Glasgow, 6 in Dundee, and 3 in Greenock. The 19 deaths from measles, however, showed an increase, and included 18 in Glasgow. The 19 deaths attributed to diarrhœa showed a considerable increase upon recent weekly numbers, and exceeded by 7 the number returned in the corresponding week of last year. Six of the 8 deaths from "fever," 4 of the 5 from diphtheria, and all the 4 from scarlet fever, occurred in Glasgow. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 124, 117, and 95 in the preceding three weeks, further declined to 95 last week, and were 53 below the number returned in the corresponding week of last year. The causes of 82, or more than 14 per cent., of the deaths in the eight towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 34·0, 33·5, and 28·5 per 1000 in the preceding three weeks, rose to 35·0 in the week ending the 16th inst. During the first six weeks of the current quarter the death-rate in the city averaged no less than 32·8 per 1000, the mean rate during the same period not exceeding 20·9 in London and 18·5 in Edinburgh. The 237 deaths in Dublin last week showed an increase of 44 upon the number in the previous week, and included 14 which resulted from measles, 7 from whooping-cough, 5 from diarrhœa, 4 from scarlet fever, 3 from "fever" (typhus, enteric, or simple), 1 from diphtheria, and not one from small-pox. Thus 34 deaths resulted from these principal zymotic diseases, against 40 and 22 in the preceding two weeks; these 34 deaths were equal to an annual rate of 5·0 per 1000, the rate from the same diseases last week being 2·9 in London and only 0·4 in Edinburgh. The fatal cases of measles in Dublin, which had been 17 and 12 in the previous two weeks, rose again to 14 last week. The 7 deaths from whooping-cough exceeded the number in any recent week, and those from scarlet fever, "fever," and diarrhœa were also more numerous than those returned in the previous week. Six inquest cases and 7 deaths from violence were registered within the city; and 76, or nearly a third of the deaths, were recorded in public institutions. The causes of 35, or nearly 15 per cent., of the deaths registered during the week were not certified.

SALFORD HEALTH BULLETIN.

The Quarterly Health Bulletin relating to the first three months of this year affords most satisfactory evidence of the health condition of the borough of Salford. The annual

death-rate did not exceed 20·7 per 1000, which was 3·9 below the rate in the corresponding periods of the five preceding years; it was also 2·0 per 1000 below the mean rate that prevailed during last quarter in the twenty-eight large English towns. The information bearing upon the notification and isolation of cases of infectious disease shows the result of energetic sanitary organisation carried out with tact, the beneficial effect of which upon the health of the borough cannot well be over-estimated. The calculated death-rate of children under five years of age in the last quarter was 53·0 per 1000 living, ranging in the four registration sub-districts from 33·6 in Broughton to 72·9 in Greengate. No more conclusive evidence is needed that the sanitary authority of the borough should look for further health progress in Greengate registration sub-district. We should be glad to see other large towns following the example of Salford in the publication of Quarterly Health Bulletins containing similar statistical information, reflecting in so trustworthy a manner the health of the population.

THE SERVICES.

Among the officers who left Sawakin in the *Jumna* on the 17th inst., sick, was Surgeon-Major J. J. Crean. Staff Surgeon P. A. Hayes and Surgeons Hay and Mander are reported as sick on board the hospital ship *Ganges*. Amongst the officers who left Sawakin for England on the 15th inst. were Staff Surgeon C. J. Holmes and Surgeon W. C. Beevor. The following officers have left Egypt for England invalided: Surgeon-Major J. Kinahan and Surgeon C. E. Faunce.

WAR OFFICE.—Army Medical Staff: Brigade Surgeon George Langford Hinde to be Deputy Surgeon-General, vice Edward Malcolm Sinclair, M.D., placed on temporary half-pay; Surgeon-Major William Temple, M.B., V.C., to be Brigade Surgeon, vice George L. Hinde; Surgeon-Major James Shand Duncan, M.D., is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Charles Wyat Watling is granted retired pay, with the honorary rank of Brigade Surgeon; Surgeon-Major Edward Harford Lloyd, M.B., is granted retired pay, with the honorary rank of Brigade Surgeon; James B. Clarkson (L.R.C.P. & S. Edin.), Lieut. 19th Lancashire Rifle Volunteers, has been appointed to a commission in the Reserve of Officers.

Correspondence.

"Audi alteram partem."

THE ELECTION OF COUNCILLORS OF THE ROYAL COLLEGE OF SURGEONS.

To the Editor of THE LANCET.

SIR,—It may simplify the action of the Fellows at the coming election for Councillors at the College of Surgeons if you will allow me to say that it is neither my wish nor my intention to offer myself for re-election.

I am, Sir, yours obediently,

Cavendish-place, W., May 16th, 1885. JOHN ERIC ERICHSEN.

"PNEUMOTHORAX FOR HÆMOPTYSIS."

To the Editor of THE LANCET.

SIR,—In an annotation last week you were good enough to speak favourably of my plan of producing artificial pneumothorax. Will you allow me a brief space to point out some advantages which this plan offers over the method by free incision besides the ones you referred to. By using a fine hollow needle the operation can be done without moving the patient in his bed, without causing any pain, and without chloroform, therefore circumstances of great moment when the patient is enfeebled by disease or loss of blood. Moreover, the pneumothorax can be induced very gradually, and can be suspended or pushed on at the option of the operator. If it seemed desirable, very considerable pressure could be brought to bear on the lung; on the other hand, if for any reason it were thought advisable, by merely reversing the process, the injected air could be immediately withdrawn, and the *status quo ante* brought about. Once the chest-wall is incised we lose further control over its mechanism, and cannot undo our operation if for any reason it fails to fulfil our requirements. You justly point out the limited application of such a procedure, and yet if it can be undertaken without risk or danger, and if the operation can, so to speak, be undone without any difficulty, it may come to be tried at an earlier stage before adhesions to the chest-wall, solidification or other mechanical causes render the lung incapable of collapsing. Such a plan appears to me thoroughly rational and full of promise; it is but an extension of the principle of physiological rest to a diseased organ incapable of getting rest in any other harmless way. Where there are small cavities or aneurysms it is not improbable that a cure may be obtained in a few cases, for it would bring the walls of such cavities into contact with each other and so promote adhesion between them, and obliteration.

I am, Sir, yours faithfully,

ROBERT WM. PARKER.

Old Cavendish-street, W., May 18th, 1885.

PERSONAL EXPERIENCE OF COCAINE AS AN ANÆSTHETIC.

To the Editor of THE LANCET.

SIR,—As I believe I am the first member of the profession who has undergone a serious operation under the influence of the new anæsthetic, I feel that I ought to place my experience on record.

About eight years ago, being then in my sixty-second year, and finding that the sight of my right eye was not so good as formerly, I consulted Sir William (then Mr.) Bowman, who informed me that I was suffering from cataract. Finding my left and best eye failing me considerably during the past autumn and winter, I determined to have the right eye operated upon, and with this object placed myself under the care of Dr. Bell Taylor of Nottingham. As I have always had a strong tendency to squeeze the lids forcibly together on slight provocation, and instinctively resent in an exaggerated degree anything like the impact of a foreign body, even of a drop of water, I fully expected it would be necessary to inhale some general anæsthetic, although I dreaded the possible ill-effects of the vomiting and retching which either ether or chloroform might occasion. I had heard, of course, of the employment of cocaine in order to annul sensation during the removal of foreign bodies from the surface of the eyeball and in other slight operations, but never for one moment expected that it would suffice for the extraction of cataract in a hypersensitive individual like myself. The doctor, however, assured me that I should not feel it, and, to my great surprise, I found that this statement was literally true. The solution of cocaine was applied to my eye three times at intervals of five minutes before the operation, and each step of the operation was explained to me by Dr. Taylor as it was successively accomplished; the preliminary incision was completed without pain, as was also the excision of a small portion of the iris made in the upward direction—a satisfactory answer it appears to me to the query, Does cocaine affect deep-seated parts?

I can truthfully affirm that the whole affair was painless, that the cataract was removed without pain, that I have had very little pain or discomfort since, and can now, little more than a fortnight after the operation, see objects distinctly, make out words of small print, and am improving every day.

You have had satisfactory evidence of the value of cocaine before, but I venture to think none so conclusive as this which I have now to offer.

I am, Sir, your obedient servant,

Staindrop, Darlington. WM. COPELAND, M.R.C.S.

THE PROSECUTION OF IRREGULAR PRACTITIONERS.

To the Editor of THE LANCET.

SIR,—It is instructive, after reading the opening speech of Sir H. Acland *in re* the punitive powers of the General Medical Council, to turn to the daily papers to see how well the Incorporated Law Society protects the interests of solicitors. Hardly a day passes without one finding that a prosecution of some unqualified legal practitioner has been

undertaken by that body, or that some black sheep in the profession has been "struck off the rolls." As the case appears in the daily press, the public hears of it, and is instructed thereby. Contrast this with what happens at the General Medical Council: the proceedings are secret, and the result only appears in the medical press, and no further steps are taken to see that the man struck off the Register does not still practise. No prosecution for unqualified practising has been ever attempted by our ruling authority, and I do not suppose the general public knows of its existence. Our corporations or universities do not help us in the least to keep up the honour and dignity of our profession. Something ought to be done, or else men will soon ask, What is the advantage of being qualified at all? What with unqualified men, prescribing chemists, prescribing dentists, bone-setters, and the large race of spinsters, parsons, and others who do not hesitate to advise their friends to try their pet quack remedy, it is difficult to see the special advantages our expensive training has given us when a living has to be made for ourselves and those dependent upon us. It is a temptation to younger men to fling aside professional dignity when they find that fortunes are made by their unqualified opponents, who by their humbug and blatant advertisements attract the "custom" which the "gentleman" and the "educated" man loses because he has some love for the honour and dignity of his profession. We have a right to demand that we should be protected from this long-continued abuse, and that the public should be protected as well. If any further powers are needed by the General Medical Council—the General Meddling Council is a better name for it,—these powers can easily be obtained from Parliament. At present all we have to show for our registration fee is a single copy of the Register given (?) at registration. Other cases occur to me, but I must not take up more of your valuable space.

I am, Sir, yours truly,

Canonbury-place, May 19th, 1885. A. GEORGE BATEMAN.

"SUCCESSFUL ŒSOPHAGOTOMY FOR REMOVAL OF A HALFPENNY SWALLOWED THREE YEARS PREVIOUSLY."

To the Editor of THE LANCET.

SIR,—In your notice of the above case in THE LANCET of Saturday last you say that the child was treated for asthma, and that the swallowing of the halfpenny was lost sight of until this fact was elicited from the history of the patient given at the hospital a few weeks ago. As the little fellow was under my treatment for some months before he went, for the last time, to the Queen's Hospital, I beg leave to give the following short history of the case as far as it fell under my observation:—The child was first brought to me on Sept. 9th of last year, and at this time I learned from his mother that he had swallowed a halfpenny on Christmas Day, 1882. According to the mother's statement he was taken immediately to a surgeon, but as at the time the symptoms were not very urgent, no attempt was made to extract the coin. Subsequently he was taken twice to the Children's Hospital and once to the Queen's. According to the papers given to the mother he was treated at these institutions for bronchitis and asthma, and on the second occasion of her going to the Children's Hospital she was even ridiculed for supposing that the halfpenny had anything to do with the chest symptoms. When he came to me there was great difficulty both in breathing and swallowing, and much emaciation. Loud mucous râles were heard all over the chest, and there was impairment of resonance on the right side. I then gave it as my opinion that the halfpenny was impacted in the œsophagus, and by its pressure on the posterior wall of the trachea had led to the dyspnœa, and probably to some more serious change in the lung itself. The mother was unwilling at the time to take him again to the hospital, especially as I told her that in my opinion any attempt at removal would prove injurious, and perhaps fatal. In this I am glad to find that I was wrong, and that the skill of the surgeon has triumphed where the care of the physician was unavailing. I have only to add that while under my care he was treated with Parrish's syrup and cod-liver oil, and that for a time he improved greatly.

I am, Sir, yours obediently,

Birmingham, May, 1885. WILLIAM J. NOTLEY, M.D.

MANCHESTER.

(From our own Correspondent.)

VICTORIA UNIVERSITY.

AT the last meeting of the Court of the Victoria University, several matters of interest to the profession, and especially to medical students, came up for consideration. On the recommendation of the Council, it was resolved that candidates for the B.A. degree may, if not required to present both Latin and Greek in their intermediate or final examination, present in lieu of one of these languages, either French or German at their preliminary examination. The proposed interchange between the intermediate B.Sc. examination (Faculty of Science), and the preliminary examination in science (Faculty of Medicine), was postponed for future consideration. The following resolution, affecting especially old students of Owens College, was adopted, viz.: That anyone qualified before this year shall be admitted to the intermediate and final examinations for the degree of M.B. without having to pass the entrance examination in arts, or the preliminary examination in science, provided they have complied as students with all other requirements. This will enable many men who were students of the College before the granting of the charter to obtain a degree in medicine by passing examinations in professional subjects only. In the report presented to the Court allusion was made to the great loss the College and the University had sustained in the death of Dr. Watson, whose death, after a lingering illness, was chronicled in your pages recently. By his death the College loses both its professor of anatomy and its dean, Dr. Watson having been appointed to the latter office on the resignation of Dr. Gamgee last year. The latter has again, *pro tem.*, taken up the duties of dean. Rumour is already busy with several names for the vacant post of professor of anatomy, amongst them Dr. A. Young, who would be a formidable competitor against any candidate, he having for many years been senior demonstrator in the dissecting room prior to holding his present posts at the Infirmary and at the Salford Hospital.

THE CONSUMPTION HOSPITAL.

At the recent annual meeting of the subscribers to the Hospital for Consumption a very energetic report was submitted. This, the only hospital in the midst of so dense a population for the treatment of consumption and diseases of the chest and throat, has long laboured under many disadvantages. The accommodation has for some time past been inadequate to its needs, the numbers of patients increasing greatly every year, numbering for the year ending 1884 no less than 3032. The accommodation for the in-patients has been so defective that the Committee have taken a building at Bowdon, situate outside the smoke of the city, and have adapted it for the reception of sixteen patients, which accommodation is ultimately to be increased to sixty beds as soon as the necessary funds are raised, the amount now required being some £10,000. The out-patient department is also to be reorganised and the staff increased by the addition of another assistant physician. The income last year was £865, whilst the estimated expenditure for the coming one is estimated at £1500 at least, so that increased support will have to be found if the work of this charity is to be carried on efficiently.

CONFERENCE ON HEALTH AND EDUCATION.

The Conference on Health and Education lately held here may be looked upon as having been very successful, although at one time it appeared likely that the whole project would fall through. Under the presidency of Lord Aberdare the meetings were well attended, and many able papers were read by specialists on the various subjects submitted for discussion. Of course "over-pressure" came in for the lion's share of attention, and on the first day a paper was read by Mr. H. E. Oakeley, Her Majesty's inspector, in which he sought to prove that this mischief had been much exaggerated, whilst Mr. James Newbold, on behalf of the Manchester teachers, read a paper on the opposite side, asserting that over-pressure did exist to a large extent in elementary schools, and the latter view was apparently in favour with the majority of the audience. It was stated by one of the physicians to the Children's Hospital that during the past few years chorea had been more common amongst children of school age, and appeared to be often due to extra

school work. Lord Aberdare, in summing up at the conclusion of the Conference, stated as his conviction that the charge of over-pressure existing to any large extent was not proven, and that under any system made for large numbers, if too rapidly followed, a small minority might be adversely affected.

THE SALFORD GUARDIANS AND THE MEDICAL SUPERINTENDENT.

The dispute which has for some time been going on between the Salford guardians and their medical superintendent at the Hope Hospital, and which culminated in the sending down an inspector from the Local Government Board to make inquiry respecting certain charges of neglect brought against the superintendent, has been settled in a satisfactory manner, the inspector reporting that in one or two minor points of discipline and refusal to answer certain questions put by the guardians the superintendent had erred, whilst the more grave charge of neglect was of such a character as could be settled by the guardians themselves, and did not call for the intervention of the Central Department. It is to be hoped that we have now heard the last of this unpleasant matter, which for some time has occupied attention here.

OUTBREAK OF SMALL-POX.

After some years of almost entire freedom from small-pox Manchester is at last suffering from an outbreak which at one time threatened to assume large proportions, as many as forty fresh cases having been reported in one week. Extra accommodation has had to be provided at the Monsall Hospital, and it has also been contemplated to use tents or marquees to meet the sudden emergency that has now arisen. To guard against the extension of the outbreak notices have been issued both by the Manchester and Salford health authorities urging revaccination.

THE CITY BOUNDARIES.

A Bill is now before Parliament for the extension of the city boundaries, by which several of the adjoining townships will be absorbed into the city. Practically they are as much part of Manchester as the city itself, and much of the ordinary municipal work is performed by Manchester—such as gas and water-supply, removal of infectious cases, &c.; and it is certain that in several of them the question of sewage disposal will shortly have to be grappled with, and this can be done by the corporation in a far more satisfactory manner than by the individual action of each local board. Notwithstanding this, one of the largest of these townships—viz, Newton Heath—has opposed the Bill, and will not, therefore, at present, be included within the city boundaries. It is in this township that a large number of cases of small-pox of the present outbreak is occurring.

NEW SOCIETIES.

The new Pathological Society has got well to work, and has had two very successful meetings. The proposed new Medical Society has not got further yet than the preliminary meeting, already noticed in your columns, and it is not unlikely that should the old society make some concessions as to the provision of a reading-room, &c., in a more central part of the city, further steps will for the present be postponed.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE COLLEGES SITE AT NEWCASTLE.

AT last this vexed question appears to have approached a settlement by the vote of the Town Council on Friday last, by which it was agreed to allow the Colleges of Medicine and of Physical Sciences sufficient land in an eligible position whereupon to erect suitable buildings adapted to the growing requirements of these institutions. The land had been granted at the price offered—namely, £10,000—by a very large majority of the Council; so that this fact in itself will have great weight with the Charity Commissioners, whose sanction is requisite to confirm the transfer. There is, however, some strong outside feeling still expressed against the sealing of the deeds.

NEWCASTLE INFIRMARY.

Some little time ago I told you that the weight of medical opinion here was against the continuance of the infirmary in its present objectionable situation. The governors, while admitting this, thought that the erection of a new building was inopportune, but met the difficulty by what was called a temporary enlargement. Everything mundane may of course be considered temporary, but this new extension has a very substantial appearance (at least in bricks and mortar); so that I venture to say the removal of the infirmary from its present position is postponed for a generation at least, while the evils complained of will continue to be felt more and more. Dr. Coley of this city has appeared in the field since I last wrote as a candidate for the vacant post of physician at the infirmary.

SERIOUS ACCIDENT TO CHILDREN.

A very serious and unusual accident occurred on the 13th inst. at Seaham Harbour, Durham, by which seven children received injuries so severe that one has since died, and the lives of the others are in jeopardy. The South Hetton coal line is worked to the shipping station at the harbour in the manner usually adopted in the north—viz., by a wire rope running over sheaves. By some means the rope attached to the laden waggons got off the pulleys at a curved part of the line, and bore against a garden railing where some children were playing; the rope, being then pulled in a straight line, caught the children and threw them into a confused heap. Fortunately, the rope soon ceased running, or it would have sawn them in pieces; as it was, they were found bound down and helpless, requiring considerable force for their extrication. Drs. Gibbon, Beatty, and Dillon were soon able to render assistance. Some of the little ones received severe fractures and contusions; and one, since dead, had both legs fractured, with injury to the back. An inquest has been held, and it would appear from the evidence that some wear or defect in the sheaves was the cause of the rope slipping off.

MEASLES AT JARROW.

The very severe epidemic of measles at Jarrow has induced the medical officer of health to request the Town Council to pay the resident practitioners the customary fee of 2*s.* 6*d.* each case for notification, the health officers stating that it would be of immense advantage in stamping out the disease to know where the cases were. An economic councillor proposed "one shilling" as sufficient, but he could get no one to support him.

Newcastle-on-Tyne, May 19th.

EDINBURGH.

(From our own Correspondent.)

THE UNIVERSITIES (SCOTLAND) BILL.

THE General Council Associations of Edinburgh and Glasgow Universities are leaving no stone unturned which may in any way further the object which has brought them into existence. A joint meeting of the London members of the two Associations was held on Saturday at the house of Dr. Chalmers, at which several prominent graduates of both Universities were present. Sir J. Risdon Bennett presided. The meeting was called to adopt measures which may lead to the amendment of the Bill in consonance with the views of the Associations as already defined at their separate meetings. The following resolution, proposed by Dr. Crichton Browne, and seconded by Dr. Chalmers, was unanimously carried: "That this meeting of the London committees of the Associations of the General Councils of Edinburgh and Glasgow Universities is agreed that no Bill for the better administration of the Scottish Universities will be satisfactory which does not provide (1) for a largely increased representation of the graduates in the University Court; (2) for the transference of the management of the funds of the University from the Senatus to the Court; (3) for an extension, under proper restrictions, of the system of extra-mural teaching." The meeting also adopted a resolution suggesting the formation of kindred Associations in the Universities of Aberdeen and St. Andrews.

VOLUNTEER AMBULANCE ORGANISATION.

The movement inaugurated last winter by Surgeon-Major Evatt amongst the students of the Edinburgh School has prospered in spite of many difficulties, and a very efficient ambulance corps has been formed. Its equipments are as yet imperfect, and it has not yet received that Government

recognition which was extended without hesitation to a similar corps recruited from the London hospitals; but, notwithstanding its present small resources and its lack of official encouragement, it bids fair to have a most prosperous career. When recent events necessitated the sudden calling out of a Volunteer regiment in Toronto, the men were accompanied to the front by a Volunteer ambulance corps and bearer companies, completely equipped and thoroughly disciplined; and this corps played a most useful part in the arduous campaign which General Midleton has just brought to a successful issue. Very few of the Volunteer regiments in the old country have any complete provision in this respect, and although on all hands such accompaniments are recognised as essential to the welfare of a regiment in war time, there seems to be a strange obliviousness to the fact that the proper time for their formation and development is in time of peace.

CONCERT AT THE ROYAL INFIRMARY.

A very successful amateur concert was given for the benefit of the patients of the Royal Infirmary on Saturday evening. The large operating theatre made a fairly convenient concert hall, and was well filled by patients and their friends. The audience seemed much pleased with the entertainment which had been provided for them, and warmly expressed their thanks to the performers at the close of the proceedings.

Edinburgh, May.

PARIS.

(From our Paris Correspondent.)

THE TREATMENT OF CHRONIC EMPYEMA BY ESTLANDER'S OPERATION.

CHARLES EDWARD CORMACK, son of the late Sir John Rose Cormack, has just taken his degree of Doctor of Medicine of the Faculty of Paris, the subject of his inaugural thesis being "Traitement de l'Empyème Chronique par l'Opération d'Estlander." The thesis is an octavo volume of 140 pages, in which is given a very good historical account of the various operative measures that have been employed from the time of Hippocrates to the present in the treatment of empyema, the operation known as Estlander's being, according to the author, the only curative treatment for this affection, particularly when accompanied by fistulæ, which, however, should be resorted to only when all other means have failed. The author gives a full description of Estlander's operation; and the work, which contains seven photographic plates, is interspersed with cases illustrative of the advantages of this method over all the others hitherto employed. The thesis winds up with the following conclusions:—1. Against the suppuration and fistula which follow purulent pleurisy, Estlander's operation is the only measure which responds to the indications of treatment of this affection. 2. It is indicated when all other means have failed. 3. One of the strongest contra-indications, and one of the causes of the failure of the operation, is the great extent of the suppurating cavity. 4. Tuberculosis, when not far advanced, is not a contra-indication of the operation; the evolution of tuberculosis may be slackened by early operative intervention. 5. The extent of the costal resection should be proportional to that of the cavity which it is proposed to fill. This resection should always be largely effected, the non-success of the operations hitherto performed being due to insufficient resection.

CAFFEINE AS A LOCAL ANÆSTHETIC.

Dr. Terrier, guided by the chemical analogy that exists between cocaine and caffeine, experimented with the latter on a dog, and obtained complete anæsthesia of the cornea. The next day, a workman presented himself at the hospital complaining of great pain in the eye caused by a foreign body in the cornea. Two drops of a 2·5 per cent. solution of the hydrochlorate of caffeine were instilled into the eye, which so completely anæsthetised the organ that the patient felt no pain whatever during the removal of the foreign body. From these two examples Dr. Terrier declared at a recent meeting of the Société de Chirurgie that he considered himself justified in concluding that the hydrochlorate of caffeine is as much an anæsthetic as the hydrochlorate of cocaine, and that the one may be substituted for the other in all cases where a local anæsthetic is required. This accords with the experience of Dr. Fauvel, the well-known laryngologist, who considers this possibilty of substitution an immense advantage in a pecuniary point of view, as the price of cocaine is still very high, being sold in this country at thirty francs per gramme, whereas the caffeine is sold at two francs for the same quantity. Dr. Fauvel employs the caffeine, to the almost entire exclusion of cocaine, in all pharyngo-laryngeal affections, in a 2 per cent. solution, a few drops of which are added to a little water, and the affected parts painted with the mixture, which affords almost instantaneous relief. The painting must of course be repeated several times during the day, in order to keep up the analgetic properties of the drug. Dr. Laborde, however, does not consider caffeine a proper substitute for cocaine, as he had tried some experiments with the former alkaloid as well as with theine, and could not obtain the least anæsthesia of the cornea, even with a concentrated solution. Prof. Panas observed lately in his practice that a solution of cocaine instilled into the eye dilated the pupil as much as atropine, which was contrary to what he had noticed before. In seeking the cause of this difference of action, Prof. Panas discovered that the cocaine he then employed was not like that he was in the habit of using. On further inquiry, he found that the substance in question was the product of the second maceration of coca leaves, and contained a large proportion of hygrine, which possesses mydriatic properties as marked as those of atropine, without the anæsthetic property of cocaine; hence the number of failures with some samples of the latter drug.

CRITICAL CONDITION OF VICTOR HUGO.

Victor Hugo is lying most dangerously ill from congestion of the lungs complicated with an affection of the heart. He has been ailing more or less for the last three or four months, and it was on Thursday last that he was seized with the attack under which he is now labouring. On that day, he gave a dinner to his friends in honour of M. de Lesseps, and appeared in good spirits. It was, however, observed that he was rather paler than usual. The reception was over by eleven o'clock, and in the course of the night Victor Hugo felt himself seriously indisposed. Dr. Emile Allix, the usual medical attendant of the illustrious poet, was immediately sent for, and he noticed that the movements of the heart were very slow and feeble. With the use of stimulants the patient seemed to revive, and during the following day nothing particular occurred to cause alarm, but in the evening his condition became aggravated, and early next day Professor Germain Sée was called in, who recognised symptoms of pulmonary congestion and heart disease. The patient who, from his advanced age, is evidently in a very serious condition, is yet in full possession of his mental faculties. He has a great aversion to medicine, and refuses to take it when offered to him. The bulletin of this morning, signed by Drs. Vulpian, Germain Sée, and Emile Allix, announces that though the prostration of the patient is very great, there yet seems to be a slight tendency to amelioration.

Paris, May 20th.

MEDICAL NOTES IN PARLIAMENT.

Lunacy Acts Amendment Bill.

ON the 19th inst. the House of Lords went into committee on this Bill, when a series of amendments, proposed by the Lord Chancellor, of which notice had been given and which occupied thirteen pages, were inserted, and the Bill was ordered to be printed.

The English Registration Bill.

During the consideration in committee of this Bill, Lord Balfour of Burleigh moved the rejection of the clause which provides that the receipt of parochial medical relief shall not disqualify a voter; and after some discussion, in which the Lord Chancellor, the Marquis of Salisbury, the Earl of Belmore, Lord Fitzgerald, the Duke of Richmond, and the Earl of Kimberley took part, the clause was struck out on a division by 72 against 47.

The House of Commons on the 20th inst., after a somewhat lengthy discussion, agreed to the Lords' amendment by 107 to 66 votes.

Irish District Lunatic Asylums.

On the 15th inst., in reply to Mr. Corbet—who asked the Irish Secretary whether it was true, as recorded in the last Parliamentary report, that 318 of the persons appointed as governors of district asylums never attended a board meeting during the year 1883; whether these persons consisted chiefly of noblemen, deputy lieutenants, and justices of the peace, and were appointed by the Lord-Lieutenant under statute; whether the duties devolving on governors included sanctioning the admission of patients, taking contracts, and general fiscal control; and whether some system could not be devised under which so large a number of the governors would not absent themselves from their duties—Mr. Campbell-Bannerman said that, assuming the figures to be correct, it must be borne in mind that these asylum boards are very large, and that the object of having them so large is to secure, not that all the members should always attend, but that there shall always be a quorum for the transaction of the necessary business. He was not aware of any complaints of failure in this respect, and it is always in the power of the Lord-Lieutenant to strengthen any board when that is deemed necessary.

Small-pox in Manchester.

In reply to a question by Mr. Leahy, relative to the removal of the 5th Dragoon Guards from Manchester to Newbridge, the Marquis of Hartington stated that the strictest orders have been given that no civilians shall be permitted to accompany the regiment to Ireland in any capacity whatever, unless they are medically examined and certified by the medical officer to be free from small-pox or the danger of conveying it to others.

Assistant Paymasters and Surgeons.

On the 21st inst. Mr. Borlase asked the Secretary to the Admiralty if it was a fact that the assistant paymaster in H.M.S. *Devastation*, who had nearly sixteen years' seniority in that rank, was thirty-seven years of age, and had been twenty years in Her Majesty's Service, was still junior in relative rank to the surgeon of that ship, who had been only fifteen months in the service, and was about twenty-three years of age; and, if so, if it was the intention of the Admiralty to allow so great an anomaly to continue. Sir T. Brassey said the figures given by the hon. member were approximately correct. The age of the surgeon on the *Devastation* was some three years more than stated in the question. No material change was contemplated with reference to relative rank of paymasters and surgeons. It was anticipated that the promotion of assistant paymasters would become more rapid in the future; but medical officers who could only enter the service on the completion of a long and expensive course of professional training would always be in a position to claim superior relative rank.

Obituary.

WILLIAM WATKINSON MOXHAY, M.R.C.S., L.S.A.

READING has just lost another prominent member of the profession by the death of Mr. Moxhay, which took place on Wednesday, the 20th inst., at the comparatively early age of sixty-three. He was educated at Guy's, and was formerly assistant accoucheur at St. Thomas's. His chest at this time was supposed to be somewhat delicate, and he went to sea in the Royal Navy for several years, which entirely invigorated him. He was then made house-surgeon at the Royal Berkshire Hospital, and was subsequently elected surgeon to the hospital, which position he held up to the time of his death. He was an expert operator and a thoroughly sound practitioner. His funeral took place on Saturday, just one month from the time of the funeral of his late colleague, Dr. Wells. Many thousand persons were present, all his colleagues, and most of the local medical men, as well as the governors, officials, and nurses of the hospital, among whom he was much beloved. He was a prominent Freemason, and the members of his lodge attended in large numbers at his funeral, as well as those of the lodge of Oddfellows to which he was surgeon.

SETH B. WATSON, M.D.

WE regret to announce the death of Dr. Watson, honorary physician to the Radcliffe Infirmary, Oxford, in his seventy-fifth year, which took place on the 15th instant. His horse having stumbled, he was thrown to the ground, and died immediately. Educated at St. John's College, Oxford, and afterwards at King's College, London, and St. George's Hospital, Dr. Watson early became physician to the Radcliffe Infirmary. Independent in thought, he from the first opposed the then universal practice of bleeding. Naturally diffident and retiring, he did not publish his opinions. Alone in his views at that time, he naturally met with much opposition, and it was even suggested that he ought to resign his appointment. He, however, lived to see his views generally accepted. Later in life Dr. Watson published a work on "The Cholera at Malta." In this he was indebted for much local information to his friend, Sir John Stoddart, formerly judge at that place. Later still he edited and published Coleridge's "Theory of Life," which met with a rapid sale. Coleridge lived with Mr. Gillman at Highgate, and after Mr. Gillman's death a manuscript was found which Dr. Watson at once identified as the work of Coleridge. It will shortly be republished, with other works of Coleridge, by Messrs. George Bell and Sons. An elegant and accomplished classical scholar, with refined and sensitive feelings, Dr. Watson will be long remembered by those who knew him best as a person of no ordinary intellectual power and a sincere friend.

Medical News.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.—The following candidates passed the Primary Examination in Anatomy and Physiology for the diploma of Member of the College at a meeting of the Board of Examiners on the 11th inst.:—

ANATOMY AND PHYSIOLOGY.—G. Alexander Sutherland, Edward H. Ezard, Alexander Primrose, John McLachlan, F. Miller Johnson, F. Wyville Thomson, Charles W. Hayward, Robert Jardine, Edward W. W. Carlier, Percy Wardle, and Alfred Mann, Edinburgh; Sydney M. Whitaker, Walter Thompson, William Sammerskill and George Handcock, Leeds; C. Louis Williams and Robert A. Beaver, Liverpool; Basil R. T. Trevelyan, Bristol; Edward C. Masser, Birmingham; Charles J. Whitley, Guy's; N. C. Ridley, St. Mary's.

ANATOMY ONLY.—Albert W. Gray, Birmingham; James B. Jamerson and Edgar N. Darwent, Edinburgh; Henry Hamilton, Bristol.

PHYSIOLOGY ONLY.—Richard F. Shepherd and Alfred Borradaile, Edinburgh; Benjamin P. Johnson, Edmund Copper and W. Courter Costine, Liverpool; Lock Macdona, Manchester and Liverpool; John Fullard, S. Vere Duncan, King's College.

(Candidates referred for three months, 3.)

Passed on the 12th inst.:—

ANATOMY AND PHYSIOLOGY.—Edward Molyneux, Liverpool; W. Aldren Turner, M. L. Trechmann, Arthur E. Barlow, J. Francis Haswell, Charles P. Kennard, Frank A. Juckes, Johnston H. Acheson, Ralph H. Maddox, F. R. B. Hinde, J. Hill Conyers, James Musgrave, H. Lloydd Roberts, J. C. Dunlop, Ernest C. S. Daniel, and W. Stacy Colman, Edinburgh; Charles P. Tanner and H. N. Cappe, University College; George A. Heberden, St. George's; H. T. Dudley Ryder, King's College; Adolph Bronner, Heidelberg; F. R. W. Brown, London; E. Marsh, Birmingham; W. Henry Hillyer, St. Thomas's.

ANATOMY ONLY.—D. W. Liebstein, A. L. Fuller, and A. Clement Gomez, University College; Hugh C. Addison and Benjamin J. E. Wright, King's College; E. O. Kingdon, St. Mary's; Thomas Walcot, Edinburgh; Sidney H. Badcock, St. Bartholomew's.

(Candidates referred for three months, 2; six months, 2.)

Passed on the 13th inst.:—

ANATOMY AND PHYSIOLOGY.—E. L. Cheatle, Francis H. Roberts, H. N. Baron, and Henry Smith, King's College; A. D. P. Hodges, London; Albert M. Sully, F. Barber Wells, Harold Dane, Charles T. Holland, Samuel Bullivant, and John E. Dyer, University College; James R. Anderson and E. L. Puddicombe, St. George's; Thomas Robinson and John Arthur Francis, St. Bartholomew's; W. L. Symes and W. H. Dolamore, St. Mary's; W. M. Helsham, St. Thomas's; A. G. W. Bowen, Guy's.

ANATOMY ONLY.—Henry J. Tizard, St. George's; Alfred W. Waller, St. Thomas's; Alfred R. Sieveking, St. Mary's.

PHYSIOLOGY ONLY.—A. H. Vassie, Edinburgh; C. H. Clayton, University College; H. A. Bray, King's College; C. Montague Leakey and Edmund D. Chabôt, London.

(Candidates referred for three months, 4; six months, 5.)

Passed on the 14th inst.:—

ANATOMY AND PHYSIOLOGY.—Francis H. Cooke, H. Cleveland Smith, H. F. C. Marvin, and Richard L. Roberts, University College; Arnold Caddy, C. Mackinnon Clark, St. George's Hospital; J. A. Pope Lockett, London; Arthur J. De Butts, A. Stephen Hanson, and Robert W. Senior, King's College.

ANATOMY ONLY.—Walter Watkins, St. Bartholomew's; F. Maurice House, Pieter C. De Wet, and H. Bowman Shepperd, St. Thomas's; J. Percival Westrup, King's College.
PHYSIOLOGY ONLY.—J. Valek Albert, St. George's; Philip J. Le Riche, University College; George H. Metcalf, Guy's; Frederick C. Auger, Charing-cross,

(Candidates referred for three months, 3; six months, 4.)

Passed on the 18th inst.:—

ANATOMY AND PHYSIOLOGY.—Thomas P. Parry, Liverpool; Charles F. Marshall and G. E. Fryer, Manchester; G. Pirrie Boddie, Edinburgh; Ernest W. Evans, St. Bartholomew's; Reginald W. Bishop, C. Ramsden Salisbury, and J. V. B. Twamley, Leeds; J. Patrick Howe, Dublin; G. E. Roberts, University College; C. E. Matthews, Cambridge; J. Frederick Twist, Birmingham.
ANATOMY ONLY.—William C. Burt, R. Wynne Rouw, G. W. A. Mitchell, and F. Stanley Wood, Guy's; George S. Ridgley, E. A. T. Harris, and Edward Carnall, St. Bartholomew's; A. Piercefield Walters, University College; James Magauran, Dublin; Walter Mitchell, Sheffield; John W. Smith, Aberdeen; W. James Watkins, Bristol; Rhodes Hebblethwaite, Leeds; J. Edmund Syme, Edinburgh.
PHYSIOLOGY ONLY.—Edwin Lambert, Leeds; Sidney E. Rossiter, St. Bartholomew's.

(Candidates referred for three months, 5; six months, 1.)

Passed on the 19th inst.:—

ANATOMY AND PHYSIOLOGY.—A. Evelyn O'Leary, Bristol; W. H. F. Noble and C. Alexander Ducket, University College; Alfred E. Nuttall, Alexander Harris, and Frederick O'Kinealy, St. Bartholomew's; Harry Corner and Digby F. B. Cotes, London; Harold A. Kidd, St. Mary's; Harford N. Edwards, Guy's; Sorabji M. Kaka, Bombay; H. Danvers, St. Thomas's; W. J. B. Carter, St. George's.
ANATOMY ONLY.—C. D. H. Rygate and E. E. P. Tindall, Guy's; Charles T. Bowen, St. Bartholomew's; J. T. R. Miller, St. Thomas's.
PHYSIOLOGY ONLY.—H. F. Devis, Bristol; J. D. H. Smyth, St. Mary's; James Bamfylde, Guy's.

Passed on the 20th inst.:—

ANATOMY AND PHYSIOLOGY.—J. Milles Thorne, R. Grieve Hicks, Percy W. Streatfield, and James W. Smith, Guy's Hospital; William Halley and Reymond E. Fasnacht, Charing-cross; P. Tranto, Carpenter, St. Mary's; E. Ashcroft Tudman, University College; E. S. Farquharson, London.
ANATOMY ONLY.—C. R. H. Buckley, C. Glover Thorp, and John P. Pendlebury, Guy's; Frentz W. Guiselin, W. G. R. Farquharson, St. Mary's; W. H. Hand, St. George's; Frederic W. Barton, University College.
PHYSIOLOGY ONLY.—Henry B. Belcher and H. H. Browne, University College; W. Fellowes Fisher and F. Stephen Reed, London; T. Hubbar Leggett and Ernest Loveday, St. Bartholomew's; Robert Stuart, St. George's; Frank Osborne, St. Thomas's; David T. Jones and Courtenay J. Fuller, Guy's; J. Ellison Finnie, Liverpool.

(Candidates referred for three months, 3; six months, 2.)

At the last Anatomical and Physiological Examination for the diploma of Membership of the College, 139 candidates presented themselves, 56 of whom, having failed to acquit themselves to the satisfaction of the Board of Examiners, were referred to their studies for three and some to six months; 21 were referred in both Anatomy and Physiology, 14 in Anatomy only, and 21 in Physiology.

COLLEGE LECTURES.—The annual course of lectures will be resumed on Monday, June 1st., at 4 P.M., by Professor Edward Lund, F.R.C.S.E., who will deliver three lectures on "Some of the Injuries and Diseases of the Head and Neck, Genito-Urinary Organs, and Rectum." Professor John Wood, F.R.S., will deliver three lectures on "Hernia and its Radical Cure," commencing on Monday, June 8th. Mr. Edward Albert Schäfer, M.R.C.S., F.R.S., will deliver three lectures on "Secretion," commencing on Monday, June 15th. Professor Charles Stewart, M.R.C.S. (Erasmus Wilson Lecturer), will conclude the course by delivering three lectures on "Inflammation," commencing on Monday, June 22nd.

The Library of the College is closed to-day (Friday), and will also be closed on Friday the 29th inst., for the purposes of the Fellowship Examinations.

UNIVERSITY OF CAMBRIDGE.—The following have been examined and approved at Cambridge University for the degree of Bachelor of Surgery:—

Andrews, John's.	Lynch, Caius.
Haig, Trinity.	Nichol, Caius.

ROYAL UNIVERSITY OF IRELAND. — The undermentioned have passed the examination for the degree of Master in Surgery:—

John Barron, W. J. Cowden, G. B. Crawford, M. H. Curtin, T. W. Dwyer, R. E. Foott, W. R. Hawkins, J. McAleer, Michael McCarthy, W. B. R. McWha, G. F. H. Marks, John Meenan, John Moore, James Musgrave, James P. O'Byrne, Robert Petticrew, E. L. Pooler, John Ryan, William Sexton, Norman Smyth, Robert Thomson, F. J. Tresilian, J. J. Walsh, M. J. Whitty.

The following have obtained the degree of Master in Obstetrics:—

Maurice Connery, Alexander Corry, M. H. Hannigan, Daniel Hennessy, Michael McCarthy, Morgan McSwiney, W. B. McWha, Robert Petticrew, John Ryan, William Sexton, F. J. Tresilian.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine, and received certificates to practise, on the 7th inst.:—

Tyndall, Francis, M.R.C.S., Liverpool School of Medicine.

Passed on the 14th:—

Dearden, Wm. Francis, M.R.C.S., Manchester School of Medicine.
Creighton, Edward, St. Thomas's Hospital.
Dobson, Leonard Charles Talbot, St. Bartholomew's Hospital.
Hall, Thomas Godfrey, Leeds School of Medicine.

THE Princess of Wales has consented to act as President of the Ladies' Sanitary Association in Dublin.

THE annual dinner in connexion with the Pharmaceutical Society of Great Britain was held on the 19th inst.

ON Wednesday night an outbreak of fire took place in St. Mary's Hospital, Cambridge-place, but was speedily extinguished.

GERMAN HOSPITAL.—The Queen has presented this Hospital with a donation of £100 as an addition to the collection made at the anniversary festival held on the 6th inst.

AT the sixth general meeting this session of the Hospitals Association on the 20th inst., Miss Louisa Twining read a paper entitled "Thoughts on the Diet of Nurses in Hospitals and Infirmaries."

AT the adjourned inquest on the 15th inst. touching the death of Dr. Charles Alworthy, of Toft Hill, near Darlington, which occurred on the 23rd ult., the jury returned a verdict of death from natural causes.

CHARING-CROSS HOSPITAL.—The Duke of Edinburgh presided on Wednesday at the triennial festival, held at Willis's Rooms, in aid of the funds of this hospital, when subscriptions to the amount of nearly £7000 were announced as the result of the meeting.

ON the 16th inst. the Archbishop of Canterbury opened the new infirmary of the Croydon Union. The designs are for six pavilions, with 643 beds; but up to the present only four pavillons, with 435 beds, have been erected. The cost of the building is £101,000.

THE LEVÉE.—At the Levée held by the Prince of Wales on behalf of the Queen at St. James's Palace on the 11th inst., Surgeon E. West Symes, M.D., of the 2nd West York (Prince of Wales's Own) Yeomanry Cavalry, was presented by Lieutenant-Colonel Edwards.

GLASGOW WATER-SUPPLY.—A Bill has passed a committee of the House of Lords giving power to raise the level of Loch Katrine and Loch Arklet, with a view of providing additional and improved water-supply to the Glasgow district, at a cost of over a million sterling.

ON Wednesday last, in the presence of a goodly company of ladies and gentlemen, Sir Spencer Wells unveiled a medallion of the late Mr. Peter Squire in the Examiners' room of the Pharmaceutical Society, Bloomsbury-square, of which Society Mr. Squire was one of the founders.

UNIVERSITY OF BRUSSELS.—At the May examinations for the degree of M.D., eleven English candidates presented themselves, of whom the following five were successful:—William Budd, Herbert Fenton (distinction in Anatomy), Herbert Spencer (distinction in Medicine and Surgery), G. Walter Steeves, and Charles R. Walker.

A CONFERENCE was held at Canterbury on the 15th inst. between the various sanitary authorities of the district, to consider the best means to be adopted for dealing with an outbreak of cholera or other epidemic disease during the approaching summer. There being no infectious hospital in the district, it was resolved that hospital tents should be hired, and immediately on a case of disease being reported, isolation should be resorted to.

JUDGE ABDY ON MEDICAL CHARGES.—In an action brought by a medical man in the Colchester County Court the plaintiff's counsel said the amount claimed was £20 2*s*. Defendant had paid £8 8*s*. into court since the bill was delivered. The account began in 1879, and extended until 1882. The counsel for the defence said his client felt that he was being very harshly used by the plaintiff in consequence of the manner in which the action had been brought. A number of very unnecessary visits had been paid. His honour (Judge Abdy) said he was astonished at the moderation of the charges made by country medical

practitioners. He did not know any body of men who worked harder. The jury found for the plaintiff for the full amount claimed.

ST. BARTHOLOMEW'S HOSPITAL, ROCHESTER.—The whole of the brickwork on the north side of the hospital is now in course of repair, and stone windowsills are to be provided. The general sanitary condition of the building has been engaging the attention of the Board of Trustees for some time past; and it has now been decided to carry out some work in connexion with the present sanitary arrangements at considerable cost.

KING'S COLLEGE HOSPITAL.—The festival dinner in connexion with this institution was held on the 16th inst., the Duke of Cambridge, President of the hospital, in the chair. The number of in-patients received during 1884 was 2193, and of out-patients treated 15,103. The deficit in 1881 amounted to £8689; in 1882 it was reduced to £2576; in 1883 it was £2889; and last year it again rose to the large sum of £6668. During the evening subscriptions and donations amounting to £2229 were announced.

TRAINING SCHOOL AND HOME FOR NURSES.—An examination, written and *viva voce*, was held at the St. Marylebone New Infirmary, Notting-hill, on the 13th inst. Lectures and chemical teaching had been given by Mr. John R. Lunn, medical superintendent, Mr. Larder, assistant medical officer, and Mr. Clifford, dispenser, on Chemistry and Hygeia, and by Miss Wyld, lady superintendent of the Nurses' Home. The School for the Training of Nurses for the Sick Poor was opened on the 22nd of July, 1884, and is in connexion with the "Nightingale Fund."

FIFESHIRE MEDICAL ASSOCIATION. — The spring meeting of this Association was held at Dunfermline on the 1st inst. Dr. Dow, the president, read a paper on the Management of Habitual Drunkards, and Dr. Naysmith one on Practical Sanitation. Dr. Brakenridge exhibited a case of Elephantiasis Græcorum. A proposal by Dr. Moir to have a course of health lectures given in the principal towns in Fifeshire was heartily adopted. An able paper was also read by Dr. Turnbull in favour of the Scottish legal system of sending lunatics to asylums.

AT the third international conference of the Societies of the Red Cross, held last year in Geneva, the Empress of Germany offered 5000 francs and a gold medal as a prize for the best model of a soldiers' barrack and field hospital. The barrack must be large enough to contain twelve beds, easy of transportation, made with interchangeable parts, and capable of being taken down and reconstructed. The designs are to be sent to Antwerp by September 1st, 1885, when a committee will decide on their respective merits.

THE HUNTERIAN MUSEUM.—A special meeting of the trustees of the Hunterian Collection was held at the Royal College of Surgeons on the 15th inst. to elect four trustees in the vacancies occasioned by the decease of Dr. Allen Thomson, of the Duke of Buccleuch, and Mr. Cæsar H. Hawkins, and by the resignation of Mr. William Hunter Baillie, when the following gentlemen were respectively elected to fill such vacancies:—Professor H. H. Flower, LL.D., F.R.S., the late Conservator of the Museum; Lord Wolsingham; Sir James Paget, Bart., LL.D., F.R.S., late President of the College; and Mr. Wm. Hunter Baillie, jun.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BARRY, C. T. U., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer of Health to the Willington-on-Tyne District, vice C. W. C. Fletcher, M.R.C.S., L.R.C.P., resigned.

CHILDE, C. P., M.R.C.S., has been appointed Assistant House-Accoucheur to King's College Hospital.

CRABB, JAMES, M.D., C.M.Ed., has been appointed Medical Officer for the Upper Holloway West District of the Islington Union, vice Cowen.

DAVIES, HOWARD, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse, Pontypridd Union, vice Hopkins, deceased.

EAST, C. H., L.S.A.Lond., has been appointed Physician's Assistant to King's College Hospital.

EASTON, THOMAS, M.A., M.B.Ed., has been appointed Medical Officer to the Wigtownshire Combination Poorhouse; and Medical Officer to the Parochial Board of Kirkcolm, and to the Cornewall Lighthouse.

GRAY, J. P., M.R.C.S., L.S.A.Lond., has been appointed Ophthalmic Clinical Assistant to King's College Hospital.

GRIFFIN, JAMES, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Cropredy District of the Banbury Union, vice Thompson, resigned.

HARRIES, J. F., M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

HUGHES, E. A., M.R.C.S., L.R.C.P., has been appointed Physician-Accoucheur's Assistant to King's College Hospital.

JEFFREE, F., M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

JENKINS, JENKIN, L.F.P.S.Glas., has been appointed Medical Officer for the Pontypridd District of the Pontypridd Union, vice Hopkins, deceased.

KEALY, JOSEPH PATRICK, L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer to the Gulgong Hospital, New South Wales.

KILHAM, CHARLES SPRIGHT, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been appointed Assistant Medical Officer to the Workhouse, Sheffield Union.

LEWIS, P. G., L.S.A.Lond., has been appointed Assistant House-Physician to King's College Hospital.

MCDOUGALL, AYMER ROBERT, M.B., C.M.Ed., M.R.C.S., has been appointed Honorary Surgeon to the Chesterfield and North Derbyshire Hospital, vice Foulds, deceased.

PADDISON, EDMUND HOWARD, M.D.Lond., M.R.C.S., has been appointed Assistant Medical Officer to the City of London Lunatic Asylum, Stone, vice Mercier, resigned.

PRIESTLEY, R. C., M.R.C.S., has been appointed House-Surgeon to King's College Hospital.

SELLICK, J. HENDERSON, M.R.C.S., has been appointed House-Surgeon to the North-West London Hospital, Kentish-town-road.

SUTHERLAND, JOHN R., L.R.C.S.Ed., has been appointed Medical Officer for the Rainton District of the Houghton-le-Spring Union, vice Jackson.

VACHELL, HERBERT REDWOOD, M.D., M.R.C.S., L.S.A.Lond., has been appointed Out-patient Medical Officer to the Glamorganshire and Monmouthshire Infirmary, Cardiff, vice Thomas Wallace, M.D., appointed Surgeon.

VIOLETTE, WILLIAM BRADLEY, M.B., C.M.Glas., has been appointed Government Medical Officer and Vaccinator for the District of the Lower Richmond River, New South Wales.

Births, Marriages, and Deaths.

BIRTHS.

BOTHAMLEY.—On the 13th inst., at Cadogan-terrace, Victoria-park, the wife of W. P. Bothamley, M.R.C.S., of a son.

DREW.—On the 20th inst., at Saville House, Buntingford, Hertfordshire, the wife of J. Bowerman Drew, F.R.C.P.S. & L.M., of a daughter.

FLINT.—On the 14th inst., at Westgate Lodge, Westgate-on-Sea, the wife of Arthur Flint, M.D., of a daughter.

HOLTHOUSE.—On the 15th inst., at Reigate, the wife of Edwin Hermus Holthouse, F.R.C.S., of a son.

JOYNT.—On the 25th ult., at Hanover-street, Kingston, Jamaica, the wife of Surgeon-Major H. W. Joynt, Army Medical Staff, of a daughter.

MARRIAGE.

FOLEY—TWEDDLE.—On the 14th inst., at St. Leonards, Streatham, Charles N. Foley, M.R.C.S., to Mary Elizabeth (May) Tweddle, daughter of the late Edward Tweddle, of Norwood, S.E.

DEATHS.

ALLEN.—On the 15th inst., at Ardleigh Lodge, Romford, very suddenly, William Edward Allen, F.R.C.S., Brigade-Surgeon, Bengal Army (retired), aged 60.

BARNES.—On the 13th inst., at 6, Portland-square, Carlisle, Dorothy, younger daughter of Henry Barnes, M.D., F.R.S.E., aged 1 year and 4 months.

COLEBROOKE.—On the 19th inst., at Brightlands, Southborough, Tunbridge Wells, Henry Colebrooke, M.D., aged 70.

CREE.—On the 18th inst., on board the steamship *Dorunda*, on his way home from Queensland, Percy Kinburn Cree, M.R.C.S. & L.S.A.Lond., Surgeon R.N., aged 29.

GRAVES.—On the 14th inst., at Canning-place, Kensington-gate, John Stewart Graves, Deputy Inspector-General of Army Hospitals, late Surgeon of the 4th Light Dragoons, and for many years Surgeon at the Tower of London.

LEE.—On the 12th inst., at Ashbourne, Derbyshire, John Lee, M.D., aged 81.

MOXHAY.—On the 13th inst., at his residence, London-street, Reading, William Watkinson Moxhay, M.R.C.S., aged 63.

OLDMAN.—On the 16th inst., at Huntingdon, John Oldman, M.R.C.S., L.S.A.Lond., Surgeon-Major, 5th Battalion King's Royal Rifle Corps, the second son of the late Thomas Oldman, Esq., of Gainsborough, Lincolnshire, aged 48.

PACKMAN.—On the 11th inst., at Anerley, John Daniel Victoria Packman, late Surgeon, H.E.I.C.S., aged 71.

PRIEST.—On the 13th inst., at Waltham Abbey, Essex, Arthur Priest, M.R.C.S., L.R.C.P.Ed., aged 66.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, May 21st, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia tn Varuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
May 15	29·98	N.W.	50	45	99	62	43	...	Cloudy
,, 16	29·83	W.	53	47	103	61	45	...	Cloudy
,, 17	29·75	W.	51	47	95	57	44	·03	Cloudy
,, 18	29·89	N.W.	48	43	95	58	41	·15	Cloudy
,, 19	30·10	W.	50	45	85	57	43	·02	Hazy
,, 20	29·60	S.W.	50	47	...	...	47	·13	Raining
,, 21	29·39	W.	48	46	99	57	43	·16	Raining

Medical Diary for the ensuing Week.

Monday, May 25.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M., and each day at the same hour.
ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

Tuesday, May 26.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.
ROYAL INSTITUTION.—3 P.M. Prof. Gamgee: Digestion and Nutrition.
ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Dr. Spencer Cobbold: Cases of Hæmaturia due to Bilharzia (illustrated by Specimens).—Dr. Angel Money: The Experimental Production of Chorea and other Results of Capillary Embolism.

Wednesday, May 27.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.
LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.
BRITISH GYNÆCOLOGICAL SOCIETY.—8.30 P.M. Specimens as usual. Discussion on Dr. More Madden's paper on Fibro-myomata.

Thursday, May 28.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. C. Meymott Tidy: Poisons.

Friday, May 29.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—9 P.M. Mr. J. J. Coleman and Professor J. G. McKendrick: Mechanical Production of Cold, and Effects of Cold on Microphytes.

Saturday, May 30.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M.
MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Rev. C. Taylor: "The Teaching of the Twelve Apostles," an Ancient Document, with Illustrations from the Talmud.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

"DRINKING PARAFFIN OIL."

To the Editor of THE LANCET.

SIR,—In THE LANCET of May 9th a case under the above heading is recorded by Mr. Willson. In January last I had to deal with a case where paraffin oil was accidentally swallowed, of which the following is a brief account.

J. H——, aged forty-three, stableman, took with him as usual to his work a tin flask containing tea. There was a similar flask in the stable, which contained about half a pint of paraffin oil. The two flasks having been carelessly placed near each other, he, feeling thirsty, picked up the wrong one, and swallowed nearly the whole of its contents. I saw him in the surgery about an hour afterwards; he was pale, and his face wore an anxious expression, more the result of mental distress than of actual suffering. There was a strong odour of paraffin oil in his breath. He complained of his throat feeling hot and dry, and of a sensation of warmth in the epigastrium, but there was neither pain nor tenderness on pressure. There was no nausea. The pupils were normal. The pulse was full and rapid, chiefly, I think, the result of excitement. An emetic of twenty grains of sulphate of zinc was given, and the vomiting encouraged by copious draughts of warm water. By these means the stomach was thoroughly emptied. The vomited matters consisted of water, a small quantity of viscid mucus, a little partially digested food, and about eight ounces of paraffin oil. For after-treatment I ordered demulcent drinks and a dose of castor oil. He went to work next morning, feeling none the worse for his experience of the day before, not even the slightest indication of gastric irritation having shown itself, although the paraffin oil must have been in contact with the mucous membrane of the stomach for at least an hour. There was very little food in the vomited matter, so that the mucous coat had not the protection from irritation which the abundant presence of food would have afforded.

I am, Sir, yours faithfully,

Hanwell, May 11th, 1885. T. C. M'CULLOCH.

Mr. U. M. Snyder.—1. Analogous cases are often met with, but are not easy to explain.—2. Bichat's work, of which the first edition was published in 1805, was translated into English by F. Gold, M.R.C.S.; but it has long been out of print. An American edition of this translation was published in Boston (Richardson and Lord) in 1827 (*vide* Index Catalogue of the Surgeon-General's Library, Washington).

W. D. D. Parks, B.A., L.K.Q.C.P.—Our correspondent's letter is written with almost invisible ink and on very thin paper; but, so far as we can make it out, we agree with him in very lightly esteeming the American degree of which he speaks.

Mr. J. Morth is referred to a general notice at the head of this column.

DR. TIBBITS' MEMORIAL FUND.

To the Editor of THE LANCET.

SIR,—Will you kindly allow me to acknowledge through THE LANCET, with many thanks, the following contributions received towards the fund being raised for the widow and nine children of the late Dr. R. T. Tibbits, Physician to the Bradford Infirmary, whose life was so suddenly brought to its close by an attack of acute pneumonia on April 14th last:—

	£	s.	d.		£	s.	d.
Dr. Frederick Orton ...	10	0	0	Dr. Saul	2	2	0
Dr. G. Oliver	5	5	0	Saml. Knaggs, Esq. ...	2	2	0
W. E. Rawstorne, Esq. ...	5	0	0	H. B. Taylor, Esq. ...	1	1	0
Francis Vacher, Esq. ...	5	0	0	A. Locker, Esq.	1	1	0
Mr. and Mrs. Vertue Edwards	2	2	0	Dr. H. M. Tuckwell ...	1	1	0
				Dr. Wakley	2	2	0

Further contributions will be thankfully received by me, or by Mr. W. Maw, Secretary to the Bradford Infirmary.

I am, Sir, yours faithfully,

JOHN APPLEYARD, F.R.C.S., M.B.Lond.

1, Clifton-villas, Manningham, Bradford, Yorks, May 19th, 1885.

ORTHO-PHENOSULPHONIC ACID.

F. VIGIER, in a French pharmaceutical journal, states that of the three phenosulphonic acids the ortho-acid only has antiseptic and disinfecting properties in a marked degree. It is not so poisonous as phenol, as much as ten grammes having been taken in small doses in twenty-four hours without inconvenience. The subcutaneous injection of 2·8 grammes proved fatal to a dog. It appears to be a powerful antiseptic, although it is exceeded in this respect by its sodium salt.

Mr. E. A. Rodway.—The number is probably very small; but we have not the information at hand.

Microscope is perhaps a little hypercritical. Men are but children of a larger growth, and seem to like pictures. This is a pictorial age.

Mr. Walter Spencer will find a full description of the examinations for the degree in THE LANCET of April 18th last.

Mr. R. Thackray.—We cannot promise without seeing the paper.

A CASE OF INTUSSUSCEPTION.

To the Editor of THE LANCET.

SIR,—Cases of this kind are sufficiently rare to be worth recording, and the following may prove interesting enough to find a place in your columns.

On May 11th last a young married woman brought her baby, a girl aged six months, into my surgery at 6 P.M., saying that "she could not make the child out," as she had been constantly crying for two hours just after giving a sudden scream, and before this she was perfectly well. The child seemed pinched about the face, and was very restless; there was no feverishness or elevation of temperature, and I could not then decide what was the matter. I ordered her a little soothing medicine, and requested to know later on how she was. At 10 P.M. I was sent for, as the child seemed worse. On my arrival I was told that she had passed on two occasions a quantity of blood, which the mother showed me on her lap. I at once suspected that I had to deal with a case of intussusception, and ordered the child to have an enema, and prescribed two-drop doses of opium and five-drop doses of tincture of belladonna every two hours, with hot fomentations to the abdomen.—12th: The child was seen three times; she had passed a restless night, with fits of pain and straining, and vomiting of rather clear fluid; had not taken the breast. The enema had had no effect. There was now to be felt a decided hardness in the left iliac fossa, and the abdomen was somewhat swollen; no urine had been passed. The medicine had for the most part kept down. The enema was repeated twice. I passed my little finger up the rectum, but could detect nothing; this part of the bowel seemed quite free. Hot poultices were applied all day.—13th: The child was decidedly worse in every respect, and in the evening I managed to borrow after some difficulty a pair of bellows, and attaching to them a piece of indiarubber gas tubing, and to this the elastic nozzle of an enema syringe, I pumped up for about twenty seconds a quantity of air, and then left for the night, with orders to continue the medicine, and to wet the lips with milk and a little brandy.—14th: There was no relief to the child, and she seemed to be getting worse; so in the afternoon I had the bellows used again more vigorously and for a longer time, the nurse using them while I held the tube in the rectum. On my last visit at night there had been no relief, except that the child had passed some urine; but it seemed to me that the abdomen was slightly softer. I could, however, give but slight hopes of recovery.—15th: The father at an early hour left a note at my house, asking me to visit the child soon, as he thought there was a change for the better. On my arrival I found that an hour or two after I had left on the previous evening the bowels had been freely open, and again about five o'clock in the morning, and that the child had had a refreshing sleep, and had taken the breast freely. The abdomen was quite soft, with very little pain, and the child looked comparatively bright. I thought it best to continue the medicine, but at longer intervals.—16th: There was great improvement in all ways, the child feeding freely without sickness. The bowels not having acted, I ordered a small teaspoonful of syrup of senna to be given in the evening. This, however, was not required, as on my visit next morning (May 17th) I learned that the bowels had acted naturally twice, and found the little one being dressed, and laughing and screaming at its father, perfectly recovered.

I am, Sir, yours very truly,

Queen's-park, Harrow-road, May 18th, 1885. A. L. GRIFFITH.

Mr. Thos. Cantrell.—Our space is too fully occupied at present to allow us to entertain the proposition.

W. J. N.—A copy of the work is to be sent to every registered medical practitioner.

CEREBRAL SURGERY.

To the Editor of THE LANCET.

SIR,—At the discussion at the Medical and Chirurgical Society last week it was stated that one of the difficulties to be contended against in operations on the brain was that of controlling the hæmorrhage. For this I would suggest pressure by decalcified sponge, such as is used in sponge grafting. Three times I have used it, or seen it used, for stopping hæmorrhage from cerebral sinuses, and once for bleeding from brain tissue; in each case it acted most satisfactorily. After some hours the sponge may be removed, or it may be gradually clipped off with a pair of scissors until only a very thin layer remains.

I am, Sir, very truly yours,

Birmingham, May 20th, 1885. GILBERT BARLING, F.R.C.S.

MR. BARNARDO'S HOMES.

THERE are now twenty-six different institutions under the direction of Mr. Barnardo, F.R.C.S.Ed. Of these, the Ragged Schools were founded in 1866; the Boys' Home, Stepney, in 1869; the Children's Hospital in 1872; the Girls' Village Home in 1873; the Little Boys' Home, Jersey, in 1880, and the other branches subsequently. From 1866 to the present year 1829 boys and girls have actually been received. There are 602 girls and 754 boys still in the institutions, while 2490 other children have received education, in whole or part, during 1884. Thus, a total of 4319 children were benefited during the year. Three hundred and fifty children have emigrated during the year, 320 boys and girls going to Canada, 9 girls to South Africa, and 21 boys and girls to Australia. The donations for all purposes during the year amounted to £60,423, which is the highest amount ever reached, and an increase over the previous year of £4700. The disbursements exceeded the income so much that the bankers' account was actually overdrawn by £3469. An exceedingly useful work is being accomplished by Mr. Barnardo, and it is to be hoped that the support accorded to him in the future will enable him to materially extend his field of labour.

M. C. C.—Try *forcible* pressure on the ganglion by means of the thumbs. Subcutaneous incision of the wall of the ganglion is another method.

SMALL-POX AND CHICKEN-POX.

To the Editor of THE LANCET.

SIR,—I have seen recently several cases of chicken-pox in adults which have been sent to small-pox hospitals, probably partly owing to the disease not being looked for at this period of life. In distinguishing cases of chicken-pox from small-pox I have chiefly relied on three points:—1. The nature and duration of the general symptoms, which seem sometimes to begin with the eruption in chicken-pox, at other times to go on after the eruption has come fully out. They are also mild. 2. The rapidity with which the eruption has become vesicular. An aborting small-pox eruption may be distinguished from a scabbing chicken-pox eruption by its not showing evidence of previous vesication, unless it has absorbed at a pretty advanced stage, when the differentiation of the diseases is aided by other circumstances. 3. The distribution of the eruption. This in small-pox generally conforms to the rule of being most abundant on the face and head, next on the limbs, preferably the arms, and least on the trunk. Chicken-pox is less regular, but usually most spots are found on the back. I would suggest that medical practitioners not familiar with the two diseases should occasionally refresh their recollection of the symptoms, &c., by looking over Dr. Collie's articles in Quain's Dictionary of Medicine, which from their practical nature will, I am sure, benefit others as they have done myself.

I am, Sir, your obedient servant,

JAMES A. PHILIP.

Metropolitan Asylums Board River Ambulance Service, May 19th, 1885.

Z.—Of course, each case of illness has to be studied separately, and idiosyncrasy has to be kept in view.

MR. DANIEL MURRAY O'HARA.

To the Editor of THE LANCET.

SIR,—It would be invidious on the part of Mr. Daniel Murray O'Hara to endeavour to disprove the remarks in the paragraph in your columns of the 16th inst. It was my intention to have invited the attention of that gentleman to the reports circulated in the Liverpool papers concerning him, and to have called his attention to the fact that I had already communicated to the Branch Medical Council in Ireland some months ago the imposition that was being then practised on his, I venture to hope, unsullied name. Seeing, however, that you have unfortunately fallen into the error, I hasten to assure you that I thoroughly sifted the circumstances on the occasion to which I have referred. I think you will find that the person who has committed suicide is Owen Patrick O'Hare, who had been sentenced to penal servitude for some offence some years ago, and scratched off the Register in consequence. This man assumed the name of O'Hara, being very similar to his own, and, unfortunately for him, has been the victim of self-sacrifice. If Mr. Daniel Murray O'Hara, with whom I am unacquainted, has been relieved of a weight on his mind, so much the better, from whom no thanks are needed by

Your obedient servant,

May 15th, 1885. AN OLD CORRESPONDENT.

P.S.—I enclose my card.

Dr. Raudnitz (Berlin).—The London institution is the only one of the kind of which we have knowledge.

USE OF THE TRICYCLE IN PREGNANCY.

To the Editor of THE LANCET.

SIR,—In reply to your correspondent, "A Member of the Cyclists' Touring Club," I would record my opinion that a pregnant woman may, with ordinary precautions, ride a tricycle to full term. Hitherto I have found it difficult to persuade them to take the exercise after the seventh month; but from feelings of delicacy only, not from inability.

I am, Sir, yours faithfully,

Leeds, May 18th, 1885. JNO. GEO. NEVITT.

M.B. (Bournemouth).—If the family were *successfully* vaccinated in four or five places at the time our correspondent states, they may regard themselves as sufficiently protected against small-pox. If after a number of years they were definitely exposed to infection, there could be no objection to their being vaccinated again, with a view to making assurance doubly sure; but this would be unnecessary in all but very exceptional cases.

Student.—Our correspondent sends specimens of medical advertising from the local newspaper. A change of residence must be made known; but it is better done by card to patients. The advertising of names of honorary medical officers in hospital and dispensary arrangements is better avoided.

A Constant Reader (Altrincham) has not enclosed his card.

J. D. F.—There is an institution of the kind at 11, Fitzroy-square, W.

COCAINE TABLETS.

To the Editor of THE LANCET.

SIR,—For convenience of administration and for efficacy I can recommend the cocaine tablets ($\frac{1}{4}$ gr.) of Messrs. Burroughs, Wellcome, and Co. The tablet will dissolve in the eye, or may be made into a solution with a few drops of water. I have tried them in a case in which some lime had accidentally touched the eye, and where the pain was most intense. The relief given was very marked. In some cases requiring removal of small foreign bodies this anæsthetic action was very grateful to the patient, and materially assisted in their easy removal. Mr. Wright, senior surgeon to the Halifax Infirmary, to whom I gave some of the tablets for experimental purposes, informs me that, having employed them, he is perfectly satisfied with the results, their action being definite and pronounced. The tablets are made in such a way as to take up a minimum of space—a dozen will go into a very small glass tube. They are stable, and in this form there cannot be any fear of the development of any fungus, and in this respect they present advantages over solutions of cocaine.—Yours truly,

Halifax, May 18th, 1885. TH. M. DOLAN, M.D.

J. A. B.—In the absence of anything to the contrary, the fees must be supposed to belong to the principal.

Health.—Spencer Thomson's book, "Health Resorts of Britain," might be of service to our correspondent.

M.B.Lond. is referred to our Students' Number.

A. Z.—A French qualification is now, we believe, indispensable.

"RINGWORM."

To the Editor of THE LANCET.

SIR,—There is no doubt that recent cases of ringworm of the scalp should always be cured by one application, and with no fear of the return of the disease. But a recent case is seldom seen; therefore unless careful supervision be made, involving separation, the avoidance of irritation from brushes, soap, &c., the disease returns sometimes with severity. I am, Sir, yours truly,

F. E. WILKINSON, M.D., M.R.C.S.

Burton Dassett, Leamington, May 24th, 1885.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. McCall Anderson, Glasgow; Dr. Latham Cambridge; Professor Longmore, Netley; Mr. Rivington, London; Dr. Bristowe, London; Dr. Sharkey, London; Mr. Snyder, Belmont, Pa.; Dr. Price, Waterloo; Mr. J. A. Philip; Dr. Suckling, Birmingham; Dr. Pringle, London; Mr. G. Barling, Birmingham; Mrs. Weldon, Holloway; Mr. A. G. Russell, Harrogate; Mr. Hughes, Hatfield; Mr. Edwards; Dr. J. S. Ferris; Mr. Parks; Dr. Wilkinson, Leamington; Mr. Shirtliff, Kingston-on-Thames; Mr. J. G. Hill, London; Mr. Copeland, Staindrop; Dr. J. Shaw, London; Mr. T. J. Barnardo, London; Mr. G. E. Walker, Liverpool; Mr. J. R. Lunn, London; Mr. Holderness, Windsor; Dr. Hawkes, London; Mr. Erichsen, London; Mr. Keating, Manchester; Mr. Russell, Liverpool; Dr. Diver, Kenley; Mrs. Seaton, London; Mr. Clark, Swadlingcote; Messrs. Maguire and Son, Dublin; Mr. Marshall, London; Mr. Leeson, Brighton; Mr. Carter, London; Mr. Farmer, Bridgewater; Miss Going, Truro; Mr. Abbott, Sheffield; Mr. Hakeman, London; Mr. Ferguson, Cheltenham; Mr. Marret, Wisbech; Dr. Sturridge, Kendal; Messrs. Funk and Wagnalls, New York; Dr. Cosgrave, Dublin; Dr. Thursfield, Shrewsbury; Dr. W. Spencer, Streatham; Dr. Ewart, London; Mr. E. W. Parker, London; Mr. A. L. Griffith; Dr. Dolan, Halifax; Mr. A. G. Bateman, London; Mr. Nevitt, Chapel Allerton; Mr. F. W. Grant, Elgin; Mr. C. E. Paget, Kendal; Mr. Spitta, Clapham; Mr. Sample, London; Dr. W. J. Notley, Birmingham; Messrs. Manlove and Co., Notts; Mr. H. Lee, London; Dr. Ridge, Enfield; Messrs. Sharp and Co., London; Dr. McKenzie, London; Mr. Waddell; Mr. Whitford, London; Messrs. Evans and Co., Liverpool; Mr. Greenwood, Liverpool; Mr. Betts, Lincoln; Mr. Tunmer, Harrogate; Messrs. Mackay, Edinburgh; Mr. Myers, Great Grimsby; Mr. Reckett, Windermere; Mr. Elliott, Carlisle; Mr. Barron, Manchester; Mr. Brown, Westgate-on-Sea; Dr. Hunt, Guildford; Mr. R. Harrison, Liverpool; Dr. Strahan; Mrs. Carless, Liverpool; Mr. Maythorn, Biggleswade; Mr. Fiddler, St. Helens; Dr. Thomson, London; Messrs. Richardson and Co., Leicester; Mr. Scott, Manchester; Mr. Freeman, London; Mr. Twyford, Hanley; Mr. Jago, London; E. W. S.; W. J. N.; K., Kensington; M.A., Oxford; M.B., Oxford; J. D. F.; M. C. C.; M.D., Edmonton; Physician and Surgeon.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Thomasz; Mr. White, Manchester; Messrs. Low and Co., London; Mr. Woollett, Lowestoft; Messrs. Savory and Moore, London; Mr. Middleton, Darlington; Mr. Sergeant, London; Mr. Beswick, Chester; Mr. Cook, Hay; Miss Hartley, Belfast; Mr. Jones; Mr. Granger, Robin Hood's Bay; Dr. Hogg, Falkland; Dr. Mackay, Esk; Mrs. Higginbotham, Glasgow; Mr. Aitken, Tevay; Mr. Francis, Burnley; Mr. Tanner, Bicester; Mr. Horsfall; Mr. Warner, Sheffield; Mr. Montgomery, Londonderry; Mr. St. Dalmas, Leicester; Mr. Everton, Birmingham; Mrs. Tubb, Bicester; Dr. Robertson, Oldham; Messrs. Byles and Son, Bradford; Mr. Faber, Stockton-on-Tees; Mr. Sturrick, Dundee; Dr. Eberle, Thirsk; Mr. Flint, New York; Messrs. Farwig and Co., London; Dr. Tate, Notts; Mr. Heap, Hanley; Mr. Jones, Sheffield; Mr. Mackay, London; Mr. Mason, London; Mr. Smith, Brighton; Mrs. Griffith, London; Mr. Llewellyn; Mr. Sharpley, Newark; Mr. Owen, Tipton; Mrs. James, St. John's-wood; Mr. Drew, Buntingford; Dr. Brayn, Whitechapel; Mr. Sherwood, Eastbourne; Mrs. John, Oxford; Mr. Burcombe, Lincoln; Mr. Corkoram, Loughborough; Mr. Marsh, Hindley; Mr. Evans, Oswestry; Mr. Scott, Easingwold; Dr. Parry, Bridgend; Dispenser, Mile-end; H. S. S.; C.; B. B., Hull; M.B.; H. S., Southport; G., Balham; Surgeon, South Shields; A. R., Leicester; Y. M., York; A. F. R.; Medicus, Ebbw Vale; M. R.; A. F., Burnley; M., Lea Bridge; H. M. H.; M.B., Norbiton; C. D. K., London; F. C., Halifax; T. B., Selby; Medicus, Notts; D. C.; Physician; P. R.; E. C. F.; B. B.; R. L. Z.; Alpha, Carnforth; A. P.; C. L., Oldbury.

Universal Benefactor, Lincolnshire Chronicle, Manchester Courier, Bucks Herald, Aberdeen Herald, East London Press, Northern Echo, Cambridge Express, Hawick Express, Liverpool Daily Post, Sheffield and Rotherham Independent, Essex Weekly News, Guernsey Star, Southampton Times, Bristol Times, Lincoln Gazette, Liverpool Evening Express, Colchester Gazette, &c., have been received.

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Agent for the Advertising Department in France—J. ASTIER, 66, Rue Caumartin, Paris.